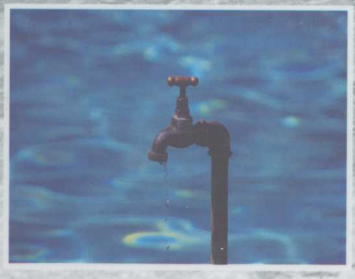
Proceedings of 2007 International Conference on Concession Public / Infrastructural Projects

Edited by Dai Da-shuang
Su Jing-qin



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公共事业/基础设施项目特许经营国际会议论文集

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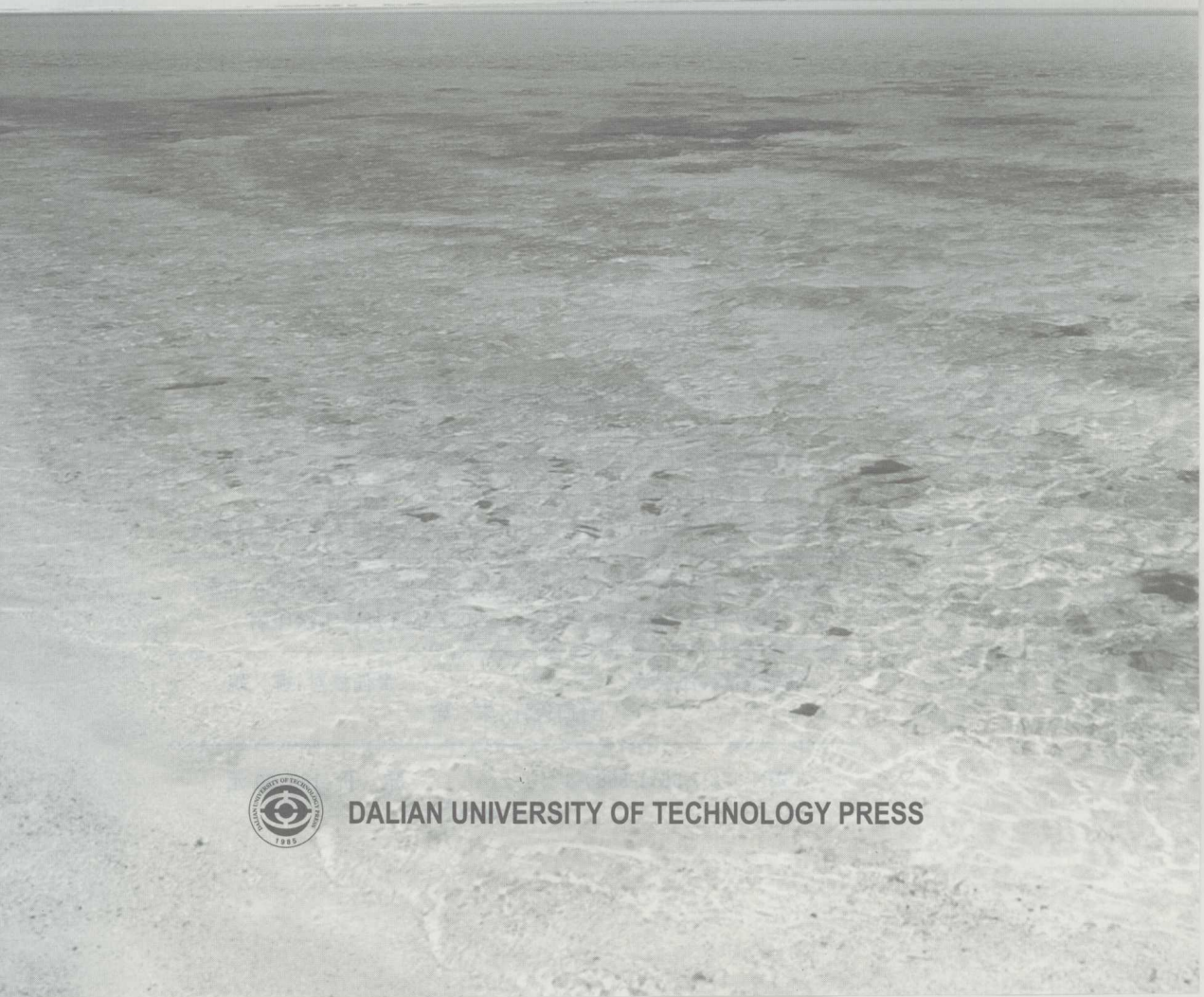

DALIAN UNIVERSITY OF TECHNOLOGY PRESS

图书在版编目(CIP)数据

公共事业 / 基础设施项目特许经营国际会议论文集. 戴大双，苏敬勤主编. —大连：大连理工大学出版社，2007.8

ISBN 978-7-5611-3689-8

Ⅰ. 公… Ⅱ. ①戴…②苏… Ⅲ. ①公用事业—项目管理—国际学术会议—文集②基础设施—项目管理—国际学术会议—文集 Ⅳ. F294—53

中国版本图书馆 CIP 数据核字(2007)第 126531 号

大连理工大学出版社出版

地址：大连市软件园路 80 号 邮政编码：116023

发行：0411-84708842 邮购：0411-84703636 传真：0411-84701466

E-mail：dutp@dutp.cn URL：http://www.dutp.cn

大连金华光彩色印刷有限公司印刷 大连理工大学出版社发行

幅面尺寸：185mm×260mm 印张：25.25 字数：580 千字

2007 年 8 月第 1 版 2007 年 8 月第 1 次印刷

责任编辑：汪会武 责任校对：娜 婉

封面设计：宋 蕾

ISBN 978-7-5611-3689-8 定 价：180.00 元

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International Conference on Concession Public / Infrastructural Projects (ICCPIP)
@2007 Dalian University of Technology Press, Dalian, ISBN978-7-5611-3689-8

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公共事业和基础设施项目特许经营决策管理

International Conference on Concession Public / Infrastructural Projects (ICCPIP)
@2007 Dalian University of Technology Press, Dalian, ISBN978-7-5611-3689-8 7:003-009

Output Specifications for Public–private Projects–pitfalls and the Way Forward

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Abstract: In the search for improved efficiency and solution to budget constraints, many public services are increasingly provided under Public Private Partnerships (PPP) in many sectors, including construction-related and facilities management services.These services are procured using Output Specifications, which stipulate the standard of outputs and the conditions for remunerating the services. As such, they are akin to Performance Specifications and share similar pitfalls. This paper examines the roles of Output Specifications in the PPP process; their features; common pitfalls and proposed solutions. It is proposed that more research needs to be carried out on this important aspect to make PPP deals more successful.

Key words: output specifications; PPP; features; pitfalls; solutions

1 Introduction

In recent years, there is a trend of governments outsourcing construction and operation of public facilities to the private sector under the Public-Private Partnership (PPP) arrangements, a model of which is more specifically called "Private Finance Initiative" (PFI) in the UK. The initial aim of the PFI was to increase the flow of capital projects against a background of restraint on public expenditure (RICS 1995) but broader objectives such as service and value improvements are promoted nowadays. The public sector is encouraged to bring the private-sector more centrally into the provision and operation of capital assets. The scope of this outsourcing can include the procurement of built facilities and operational services for hospitals, schools, prisons, physical laboratories, helicopter bases or just the provision of relatively simple services such as helpdesks. Innovative deals are on the increase day by day.

2 The Use of Public–Private Partnerships in Procuring Projects

Typically, a PFI project involves the government in soliciting the private sector to finance, design, construct, operate and maintain a public facility for a defined period, during which the government pays for the service on a unitary charge (i.e., per unit service provided) basis. Upon expiry of the defined period, the facility will be handed back to the government or the service provider's contract may be renewable at that stage. As such, there is a substantial transfer of construction and commercial risks (particularly in respect of demand) to the private sector. On one hand, the government can relieve themselves of the burden of upfront capital expenditure and reduce the size of public establishment. On the other hand, the instillation of commercial disciplines is said to improve the efficiency of operation. This procurement approach also

enables life cycle issues to be incorporated into the business deal, which is not the case for traditionally procured construction.

To start a PFI project, a government entity usually has to establish a business case and benchmark its parameters against a "Public Sector Comparator" (PSC-an estimate of what a project would cost for its whole life if conventional delivery methods were used, considering risk retained by the public sector) in terms of value for money. When the financial model is judged to be sound, the public sector entity will prepare a preliminary statement of their requirements and invite the private sector to express their interest in the project. However, PSC is not universally adopted (e.g., not in China BOT schemes).

Private sector companies usually form different consortia comprising of builders, financiers, designers and operators when they receive the Invitation for Expression of Interest (EOI). Consortia are usually constructor-led in immature markets and financier-led in mature markets. The subsequent pre-qualification will short-list a smaller number of consortia to receive the Invitation to Negotiate (ITN) [which is a public notice requesting bids] based on Output Specifications. When the deal is eventually struck after bid evaluation and negotiation, the Output Specifications will form part of the project agreement. The government's payment for the service is dependent on the fulfillment of the Output Specifications, in terms of availability of the facilities and the performance of the services based on indicators such as response or rectification times of the operation team. Deductions can be effected if the Output Specifications are not fully complied with. As such, the Output Specifications are not only stating the performance of the built facilities but also act as a tool for monitoring the standard of service provided in their use during the contract period, which typically extends to 20 to 30 years after the physical completion. Fig.1 summarizes the stages of a typical PPP/PFI project.

3 Output Specification Features

As the name implies, Output Specifications focus not on the "inputs" or "how to" of the design and build processes, but on the output performance requirements or "what is required" of the facilities in their physical forms and servicing state. Certainly the portions dealing with construction resemble the performance specifications of a D & B contract. In an example of sewage treatment facility, the effluent quality is specified rather than the process to be applied to the sewage to achieve the effluent quality. Yet, the entire coverage of an Output Specification is much wider than construction alone. For example, for a PFI school project, the Output Specifications will state the requirements for the "Contractor" to incorporate design and planning for future curriculum change and sociological dimensions such as community involvement in school activities. Expectation of shared use of the built facilities with the community is also highlighted. The Output Specifications also delineate responsibilities (as a means of risk allocation) between the government entity and the School Operator. For example, the Output Specifications will state that vandalism is to be managed by the Local Education Authority during school hours whereas outside those hours, responsibilities will lie with the School Operator unless it can be proved that a public official party was involved in the incident

(Audit Commission, 2003). The objectives of Output Specifications, apart from briefing the interested parties on the performance requirements (focusing on service), are to enable innovative solutions to the problems posed by the core requirements. Yet, clients should be mindful of the expensive bidding process.

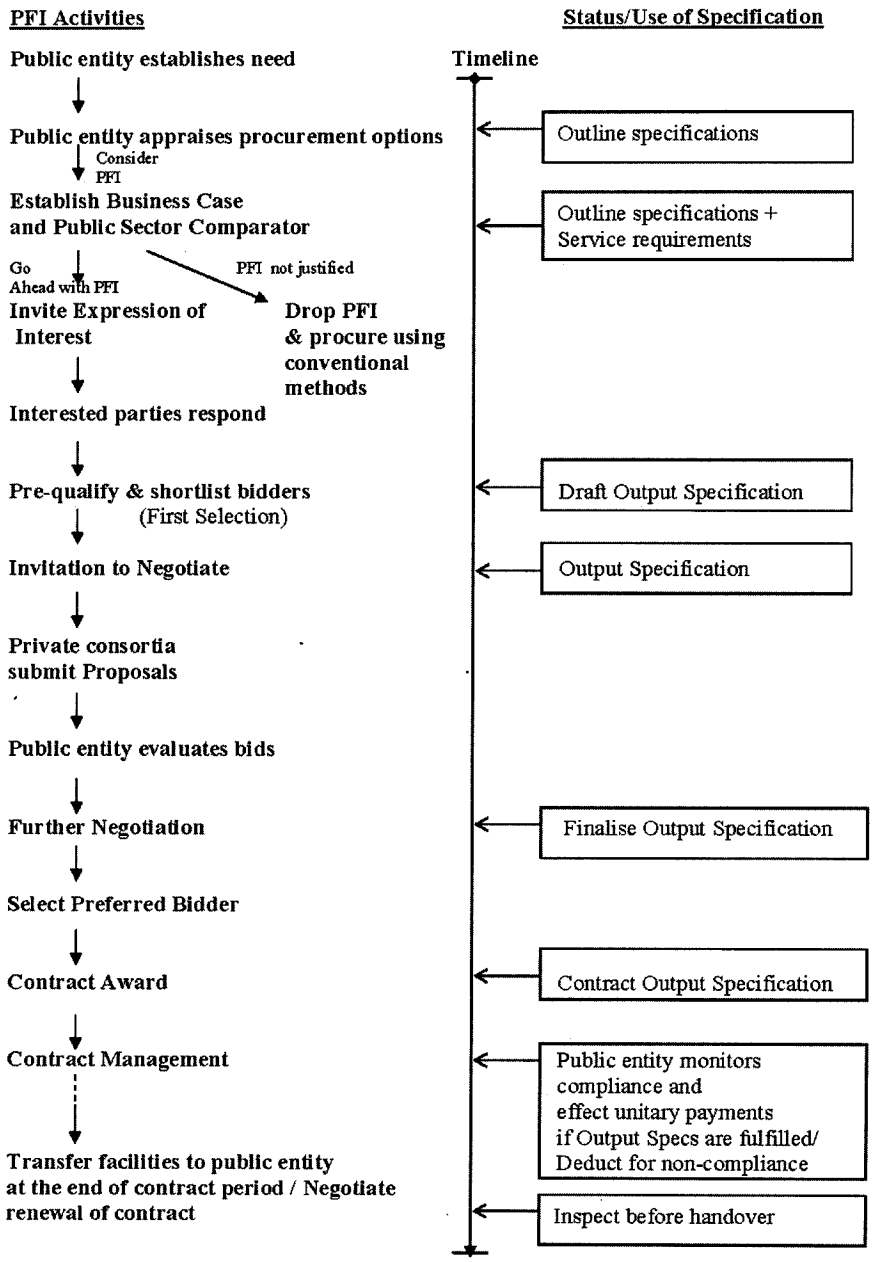

Figure 1 Flow diagram of PPP/PFI projects indicating relationship with output specifications

As a tool to monitor the Contractor's service, Output Specifications also contain criteria or performance indicators against which the quality of output would be judged. These criteria are

related to the payment mode of the services. In this respect, it has been said that Output Specification requirements were more onerous than "fitness for purpose" since service providers would be responsible for typically 20 to 30 years and depend on their fulfillment for income (Mosey, 1998).

4 Development of Output Specifications

An Output Specification should be made available to the bidders as early as possible in the PPP development process. Unlike the traditional process, negotiations could entail substantial revisions to the document from the invitation stage to the contract formation stage. A survey probing into client briefing via Output Specifications was carried out by Akintoye and Donnelly (2003), which covered 36 construction contractors who had involvement with a variety of PFI projects in the UK-which has launched over 500 PFI projects in the last decade according to the Select Committee Report, 2003.

Twenty two per cent of the respondents preferred to have the Output Specification early at the Invitation for Expression of Interest stage. The majority, however, would like to have it either at First Selection (28 per cent) and Invitation to Negotiate (33 per cent). Only a smaller proportion (17 per cent) would like to receive it together with the tender document (Akintoye and Donnelly, 2003). It was presumed that the early issue of Output Specifications and related documents enabled bidders to assess their own abilities to undertake the project.

Akintoye and Donnelly (2003) also highlighted the Contractors' wish to be consulted early (most preferably at the Invitation to Negotiate stage), in order to reduce an unrealistic demand being placed on contractors by the public sector, thereby reducing the overall time required for negotiation and also the possibility of abortive bids.

More importantly, results from the Akintoye and Donnelly (2003) survey show a lower rating for Output Specifications (2.75 out of 5), in terms of adequacy of detail, when compared with the Project Programme (3.78) and the Project Definition (3.61). The original researchers regarded Output Specifications as one of the most contentious areas in PFI project tendering. They supported the assertion by Cole (1998) that it was difficult to translate broad Output Specifications into proposals which would meet the specific and often complex requirements of various public sector clients. Whilst Output Specifications and the Project Definition are contractual documents, the Project Programme is not (indicating milestones only).

Akintoye and Donnelly (2003) survey further reported that Output Specifications took a longer time to negotiate than Project Definition and Project Programme. A sticky point in negotiation is that client departments often wish to turn Output Specifications into Input Specifications to facilitate monitoring.

5 Pitfalls and Proposed Solutions

The Output Specifications should define the evaluation criteria of proposals to create a level-playing field for all contenders, although eventually the contract version of the

Specifications may incorporate the specific agreement on performance of the successful consortium since PFI projects are essentially awarded not only by competition but by negotiation. Yet, care must be exercised by the Specification Writer not to reveal any intellectual property of a negotiating party to their competitors. It would be quite improper to use the negotiating process as a means of unfairly obtaining and then misusing commercially sensitive information (HM Treasury, 1996).

Compatibility with other service providers also needs specifying. For example, the communication system to be provided by the private sector on a Design-Build-Finance-Operate road should be compatible with the Highway Agency's own system, otherwise the benefit of a national network would be lost.

Interfacing issues need to be addressed in such a way as to alert the service povider to the requirements but not to specify how to achieve them. In many cases, the ability of the Facilities Management Provider to deliver a service will be closely linked to the operational management of the facility. For example, 'out-of-hours' access arrangements for users are likely to have an impact on the security responsibilities of the service provider. The Specification Writer should identify where there are likely to be operational interface issues between different organisations. Constraints should be drawn to the attention of the service providers, since these are risks to be borne by them.

Alternative solutions should stem naturally from a well-written Output Specification, but if conformance to a given scenario is envisaged, say, due to regulatory control, this should be stated clearly so that direct comparison can be made of base bids. This applies to risk allocation as well, in that the Specification Writer can test out the different risk premiums attached to different risk allocation scenarios by inviting alternative bids. Should the budget be a real constraint at the time of inviting bids but not necessarily so when the deal is eventually struck, the Output Specification may ask for the essential elements to be priced alongside optional enhanced items so that some flexibility is at hand rather than accept constraints owing to immediate affordability.

An issue often at conundrum for the Specification Writer is the extent of control retained by the Purchaser in the specification of details. For a complex facility (such as a physical laboratory catering for varying scientific processes), there may well be the need to specify closely the business requirements and to suggest the means of delivery to help the bidders to respond and set a firm baseline for the systems to be developed (NAO Report, 1999). Yet, exploitation of private sector innovation is critical to the success of the PFI in delivering improved value for money (NAO Report, 1998). A balance has to be struck somewhere with careful thought being given by the Specification Writer to the extent to which the Purchaser wishes to specify the means by which the service levels will be achieved at the partial expense of innovation (Lane, 2003).

Other potential problems of Output Specifications and the proposed solutions as extracted from the literature are shown in Table 1 With the great variety of facility types that are put on the PFI agenda of many countries, there is still a great deal to learn about the pitfalls created by Output Specifications for each specific type of project. The general principles, however, should always be that clarity and relevance of contents should prevail. Like the normal specifications