

Tax Dilemma of PPP Projects under the New Revenue Criteria—Take a PPP Project in Yunnan Province as an Example

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Abstract: PPP projects have the characteristics of involving a variety of taxes and need to deal with multiple tax links. At present, there is a lack of special tax regulations and policies, and the use of the existing tax law is controversial, which leads to obvious tax risks in PPP projects. This paper takes a PPP waste incineration power generation project in Yunnan Province as an example to analyze the tax categories involved in the whole process and the corresponding tax-related disputes. Through the combination of theory and practice, it provides tax-related solutions for similar PPP projects to ensure the expected benefits and cost controllability.

1. Introduction

Due to the increasing demand for public services, limited government funds and limited operation and management capacity, so more and more government departments begin to turn to the market, hoping that social institutions will provide corresponding services. The PPP model has the advantage of providing higher quality and more efficient public services for the public, and has been widely used and developed in the field of engineering project construction in China.

Cheng Xun in the 'new income standards under the EPC project tax difference and risk research' this article summarized about the new revenue standards EPC (design, procurement and construction) project revenue recognition and accounting treatment, mainly analysis and explain in different circumstances in the EPC contract technology, construction and service delivery and charge analysis and processing, as well as the accounting tax differences and risk caused by the problem. The author by applying the new revenue criteria, the EPC contract revenue recognition need to consider the key elements (such as control, service, revenue reliability, etc.), and possible complex situation in practice, thus insight into the new criteria revenue recognition and tax treatment, aims to help enterprises to better understand and follow the new revenue criteria, avoid tax disputes and risk^[1].

The new revenue criteria incorporate PPP projects into a unified five-step model, replacing the previous single accounting model that used only the construction contract criteria. Now, PPP projects can be divided into multiple single performance obligations according to their different

characteristics, and they can be accounted for according to the time point or time period. This helps to more closely contact with the PPP project accounting, contract agreement, project characteristics and schedule.

Although the PPP project adopts a new accounting method, the relevant provisions of enterprise income tax still follow the original construction contract standard accounting mode, which may lead to the difference between the old and new accounting methods in income tax revenue and cost recognition, and cause a number of tax disputes. The design, construction and product sales of PPP projects involve different VAT rates, and are combined with the time difference of the new revenue criteria, which increases the difficulty and controversy of VAT tax management. Because the PPP project involves the design, construction and product sales of different stages of VAT difference, and the time difference with the new income standards accounting overlap, make management and controversial VAT payment more challenging, so the study in the PPP project tax differences and related practice disputes become more urgent and important.

At present, the study of the new revenue criteria of PPP projects mainly focuses on comparing the old and new criteria and exploring the application methods of the new criteria. Existing research does not address possible tax disputes in complex PPP project examples. This paper will start from the root of the tax difference of PPP project, take a PPP project of waste incineration power generation in Yunnan Province as an example, study the tax disputes in the enterprise income tax and value-added tax of the project, further analyze the tax risks of the project, and provide beneficial suggestions on the fiscal and tax management of this type of PPP project.

2. The Impact of the New Revenue Standards on PPP Projects

On July 5, 2017, the Ministry of Finance officially issued the Notice on revising and Issuing Accounting Standards for Business Enterprises No.14-Income> (Accounting Accounting No.22, 2017, hereinafter referred to as the 'New Revenue Standards'). The New Revenue Standards maintains its convergence with IFRS No.15-Customer Contract Revenue, reforming the existing revenue recognition model-from income to asset-liability^[9]. The new Income Standards stipulates that enterprises listed both domestically and internationally and enterprises listed outside of China that adopt IFRS or ASBE for financial statement preparation shall be implemented as of January 1,2018; other domestic listed enterprises shall come into force from January 1,2020; for unlisted enterprises, there shall be^[3] as of January 1, 2021.

2.1 Specific Impact of the New Revenue Guidelines on PPP Projects

2.1.1 Income Recognition based on the Contract

New 'revenue standards' requires enterprises based on the contract between customers to confirm income, and combine the 2006 version of ASBE No. 14 - Revenue ("2006 Revenue Standard") and ASBE No. 15 - Construction Contracts ("Construction Contracts Standard") into the unified revenue recognition model, and distinguish revenue between a time performance and a point performance^[9].

2.1.2 The Intangible Asset Mode of the Main Responsible Person

Standards in our country at the end of January 2021 issued 'accounting standards for enterprises explain no. 14' (hereinafter referred to as the 'interpretation announcement 14'), explain announcement 14 regulation, social capital construction services or contract to other parties, etc., shall, in accordance with the 'accounting standards for enterprises no. 14-income' determine its identity is the main responsible or agent, and accounting treatment, confirm the contract assets. This

article stipulates that whether the social capital party recognizes the income from construction services needs to judge whether the social capital party is the main responsible person according to the provisions on the main responsible person and agents in the new Revenue Standards. If the social capital party is the main responsible person, the income related to the construction service should be recognized ^[10].

Explanation announcement 14 at the same time, for intangible assets mode, during the project operation, have the right to obtain public goods and services, but the charge amount is uncertain, the right does not constitute an unconditional charge cash right, shall be in the PPP project assets to predetermined usable state, the relevant PPP project assets consideration amount or confirm the construction income amount recognized as intangible assets. It can be found that the interpretation of the announcement 14 provisions clear, enterprises in the recognition of income, should first confirm the contract assets. Subsequently, for the intangible asset model, the contract assets can be converted into intangible assets ^[4] only when the PPP project assets reach the predetermined usable state.

If the government decides to settle the non-cash consideration, for example, for the PPP project using the concession, the government settles the concession (i. e., intangible assets), it is considered that the government has settled the consideration for the construction services by paying the non-cash consideration. The enterprise shall confirm the non-cash consideration (intangible assets) received. In terms of specific treatment, the enterprise debit the intangible assets at the same time credit the contract assets. The subsequent operation of the PPP project by the enterprise belongs to the income generated by the operation of its own intangible assets. The enterprise needs to rerecognize the income (services or goods) and carry forward the cost (including the amortization cost of intangible assets).

2.1.3 Revenue Composition of the Intangible Assets Model

The new revenue code stipulates that enterprises should usually determine the transaction price according to the fair value of the non-cash consideration at the beginning of the contract. Where the fair value of the non-cash consideration cannot be reasonably estimated, the enterprise shall indirectly determine the transaction price ^[2] with reference to the separate selling price of the goods that it undertakes to transfer to the customer. In PPP projects, because it is difficult to directly estimate the fair value of intangible assets, enterprises usually indirectly determine the transaction price according to the separate selling price of the construction service, that is, the fair value of intangible assets.

In the intangible asset mode, in terms of the results of the construction service, the PPP project generated and settled two groups of income, one is the income of the construction service itself, and the government has completed the settlement of the intangible assets; one is the group of the income generated by the enterprise through the operation of intangible assets (such as franchise rights). Under the intangible assets model, the income recognized by the enterprise will obviously exceed the actual cash inflow.

3. Analysis of Tax-Related Cases of a PPP Project in Yunnan Province under the New Revenue Criterion

3.1 PPP Project Introduction

3.1.1 Overview of the PPP Project

In November 2019, the city Administration signed the partnership (PPP) contract with YXKL Environmental Protection Technology Co., LTD. The City Administration Bureau of Hongta District of Yuxi City is the client, and YXKL Environmental Protection Technology Co., Ltd. is the builder and operator of the project. The total investment of the project is 548 million yuan, and the capital gap is the external loan financing of the project company. The project cooperation period is 32 years, including a construction period of 2 years and an operation period of 30 years. The project company is responsible for the domestic waste incineration and power generation of Yuxi City, in which the domestic waste incineration is the professional technical service income and is settled according to the actual processing quantity and paid by the environmental cleaning center under the government; the electricity generation is settled to the power grid company according to the actual grid quantity.

3.1.2 Business Process Situation

YXKL mainly operates in waste incineration and electricity sales; incineration power generation and treatment system mainly includes: waste receiving and storage system, waste heat boiler system, flue gas purification system, steam turbine generator system, slag fly ash and treatment system, instrument and automatic control system, incineration and electrical engineering. The whole treatment process is roughly divided into three stages: dry ignition, main combustion and post-combustion. In order to prevent air pollution, to ensure that in addition to the full combustion of garbage, the flue gas and gasification content produced in the furnace are fully burned. The combustion process generally does not require auxiliary materials, but auxiliary fuel for the furnace (diesel and water). The flue gas generated by the waste combustion process passes through the waste heat boiler connected with the incinerator to produce steam, which is used to drive the steam turbine to generate electricity.

The flue gas from the waste heat boiler is removed to neutralize the harmful gases such as hydrogen chloride contained in the flue gas through the harmful gas purification device, and the fly ash in the flue gas is removed by the dust collector. Finally, the flue gas is discharged into the atmosphere with the induced draft fan (mainly reducing lime, activated carbon, chelating agent and other consumables are used to achieve the flue gas emission standard). The ash burned on the discharge furnace falls into the hydraulic slag removal machine with water seal, and is buried by the landfill or comprehensive utilization after cooling.

3.1.3 Operation Situation

The Yuxi municipal solid waste incineration power generation project has a designed capacity of 700 tons of garbage / day, and can realize the on-grid power of 280 KWH / ton (196,000 KWH / day). YXKL signed a PPP contract with the City Administration Bureau of Hongta District, Yuxi City. The contract period is 30 years (excluding the construction period), it agreed that YXKL will charge garbage disposal service fee and online electricity fee during the 30-year operation period. The garbage disposal business will confirm the income quantity according to the garbage receiving amount every month, and the disposal unit price is tentatively calculated at 96 yuan / ton according to the principle of construction cost and small profit.

The project was transferred into operation in April 2021. By December 2021, the project handled 88277.93 tons of garbage, with load rate 92.90% and daily disposal waste 650.3 tons; the on-grid power 29,556,100 KWH, with load rate 82.08%, a ton of garbage 334.81 degrees, and the daily on-grid power 217724.49 degrees.

3.1.4 Main Terms of the PPP Contract

Ownership of the project assets belongs to the government. During the term of cooperation, Party B shall enjoy the Franchise Agreement granted by the government and the usufruct of the project assets to Party B; the right of the disposal and derivative right of the project assets belong to the government and no guarantee on the project assets without legal permission and consent of the government. After the end of the cooperation period, the project assets shall be transferred to the government or the agency designated by the government under the premise of no conditions and no defective rights, and the ownership, use, income and disposal of the project assets shall all belong to the government.

The project user pays the electricity fee income, which is not enough to make up for the reasonable investment income of social capital. The income return mechanism is the feasibility gap subsidy, that is, when Party A and Party B settle accounts, the service fee for each ton of garbage disposal is calculated.

From the perspective of social capital, the garbage disposal fees are uniformly paid by the government, and the full amount constitutes operating subsidies. From the perspective of government financial management, the garbage disposal fee can be divided into the garbage fee paid by units and individuals, as well as the difference subsidy of the government budget. In any case, the government promises to bring the feasibility gap subsidy into the financial budget management. The unit price of garbage disposal service fee in this project is in the form of lump price. The unit price of garbage disposal service fee is 106.65 yuan / ton. The specific composition shall be signed by both parties separately. The unit price of the garbage treatment service fee includes the part of the 'operating income of garbage treatment' that should be deducted, including: the electricity sales income of garbage incineration for power generation, and other contingent income belonging to Party B. In principle, social capital shall bear all operational risks at the unit price of the garbage disposal service fee of the project, unless Party A has significant adverse administrative interference with Party B's operation.

3.2 Analysis of the tax Dilemma of the PPP Project in this Case

3.2.1 Whether the Construction Service Income is Subject to VAT

Before the implementation of the accounting change of AS 14 - Revenue, the project did not recognize construction service revenue during the construction period, and after the accounting change, the project retroactively adjusted to recognize construction service revenue of RMB 538 million during the construction period. About construction service income should pay VAT, there are some disputes in the project actual operation. The author believes that VAT should not be paid for construction services for the following reasons:

According to the "Enterprise Accounting Standard Interpretation No. 14", the PPP project contract refers to the contract entered into by the social capital party and the government party in accordance with the law and regulations regarding the cooperation of PPP projects. The contract of the following characteristics (hereinafter referred to as 'double characteristics'):(1) The social capital party uses the PPP project assets to provide public goods and services on behalf of the government during the contracted operation period; (2) The social capital party is compensated for the public goods and services it provides during the contracted period ^[4]. According to the definition of 'double characteristics' of the PPP project, the PPP project in this case meets its conditions, that is, it uses the PPP project assets to provide public goods and services on behalf of the government during the operation period, and gets compensation for the products and services provided.

According to Article 6 of the Provisional Regulations of the People's Republic of China, the sales volume is the total price and additional fees charged by the taxpayer for selling goods or

taxable services, but it does not include the output tax collected ^[5]. To provide public goods and services on behalf of the PPP project assets and receive compensation, and the construction services are provided in exchange for management rights. Therefore, the taxable sales of the PPP project in this case should be the public goods and services provided, rather than the construction services. Similar to real estate enterprise development enterprises, the construction of real estate is for sales, is paid VAT on the sale of real estate, rather than pay VAT on construction services.

According to the article (3) of BT and BOT projects of Yunnan Province to replace Business Tax (18): BOT mode, BOT is construction-operation-transfer. It is a way for the government to use private enterprises to participate in infrastructure construction and provide public services to the society. Where a taxpayer sets up a construction project in the name of the investment and financing persons, and transfers the owner for a period of time after the completion of the project, the income obtained of the investment and financing personnel shall be taxed according to the applicable tax rate of the goods and services sold by them. In the transfer phase, VAT is levied on the income obtained according to the tax item of 'sale of real estate'. If the taxpayer starts the construction (B) of the project (s) in the name of the project owner and delivers (O) after the completion of the project to the owner (T). During the operation phase, the investor and financier are taxed on the income received at the tax rate applicable to the goods and services they sell; during the delivery phase, VAT is levied on the income received under the tax heading of "sale of intangible assets". The PPP project in this case conforms to the characteristics of construction-operation-transfer. In the construction stage, the project company will not pay VAT, and the project company will pay VAT at the applicable tax rate at the operation stage.

Based on the above three reasons, the PPP project in this case first meets the 'PPP double characteristics', and the social capital party shall be compensated for the public goods and services provided by it within the period agreed in the contract. Therefore, the taxable sales behavior of the PPP project in this case shall be the public goods and services provided, rather than the construction services. Moreover, according to the tax regulations of Yunnan Province on BOT mode, the project company in the construction stage should not pay VAT. Therefore, the author believes that the construction service income of the PPP project in this case should not be subject to VAT.

3.2.2 Start Time of Three Exemptions and Three Halving of project Income

YXKL project is a public garbage disposal, which can enjoy the tax benefits of three exemptions and three halving. After the accounting change, the construction service income will be recognized during the construction period. Even if the income is not actually obtained and only recorded as the accounting estimate, the starting period of three exemptions and three halved tax benefits will be controversial. The author believes that the starting period of three exemptions and three halving should not include the construction period, for the following reasons:

According to the implementation provisions of Article 88 of the "Enterprise Income Tax Law of the People's Republic of China", the first item of the "Enterprise Income Tax Law" conforms to environmental protection, energy saving, water saving and other projects, including public sewage treatment, public garbage treatment, comprehensive development and utilization of biogas, energy saving and emission reduction technology transformation, seawater desalination and so on. The specific conditions and scope of the project shall be formulated by the competent financial and tax department under The State Council in consultation with the relevant departments under The State Council, and promulgated and implemented after being approved by The State Council. The income of an enterprise from qualified environmental protection, energy conservation and water saving projects specified in the preceding paragraph shall be exempted from the enterprise income tax from the first year to the third year when the project obtains the first production and operation income tax, and the enterprise income tax shall be halved from the fourth year to the sixth year ^[7]. The starting

time of three exemptions and three halving is from the first production and operation income obtained by the project. First production and operation income reference to the state administration of taxation on the implementation of national key support of public infrastructure projects enterprise income tax preferential problem notice (national tax hair 2009, 80) in the second 'the first production and operation income, refers to the public infrastructure projects built and put into operation (including trial operation) after the first main business income.' The definition is the first main business income obtained from the construction and operation.

Therefore, the author believes that the construction service income recognized during the construction of PPP project in this case is the income recognized when the project is not completed, and should not be regarded as the first production and operation income. The beginning period of three exemptions and three halved tax incentives should be when the first garbage disposal income is obtained.

3.2.3 The Main Business Income and Total Revenue Base of the Western Development Tax Incentives

According to the Announcement of the Extension of the Enterprise Income Tax Policy for the Western Development (Announcement of the National Development and Reform Commission of the State Administration of Taxation of the Ministry of Finance No.23, 2020), From January 1, 2021 to December 31, 2030, the enterprise income tax will be levied on the encouraged industrial enterprises in the western region at a reduced rate of 15%. The term 'encouraged industrial enterprises' mentioned in this article refers to the^[8] of enterprises that take the industrial projects stipulated in the Catalogue of Encouraged Industries in the Western Regions as their main business and whose main business income accounts for more than 60% of the total enterprise income. As mentioned, YXKL project belongs to the encouraged industry in the western region and can enjoy the enterprise income tax preference of the western development. However, if the construction service income is the base of the main business income and the total income of the enterprise, the ratio of the main business income to the total income of the enterprise will not reach 60%, and the project company will not enjoy the preferential policy of enterprise income tax for the western development.

In the author's opinion, the income from construction services should not be the base of the main business income and the total income of the enterprise for the following reasons:

According to Article 6 of the Enterprise Income Tax Law of the People's Republic of China, 'The revenue obtained by the enterprise from various sources in monetary and non-monetary forms is the total revenue.'^[6]' Article 12 The monetary forms of enterprise income prescribed in Article 6 of the Enterprise Income Tax Law of the People's Republic of China include cash, deposits, accounts receivable, notes receivable, reserves for investment in maturing bonds and cancellation of debts. The forms of enterprise income prescribed in Article 6 of the Enterprise Income Tax Law include fixed assets, biological assets, intangible assets, equity investments, inventories, investment in unmaturing bonds, labor services and related rights and interests^[7].'The construction income recognized during the construction period does not belong to the above monetary and non-monetary forms of income, and is not regarded as the taxable income amount of the enterprise income tax.

Therefore, the author believes that the construction income recognized during the construction of the PPP project in this case does not belong to the income obtained in the above monetary and non-monetary forms, so the construction income is not incorporated into the main business income and the total income of the enterprise when the tax preference of the Western Development is calculated.

4. Conclusion

Tax is an external factor, which directly affects the cost and return of the PPP model, thus affecting the quality of the public goods and services provided. Reasonable preferential tax policies can reduce the tax burden of participants and encourage the active participation of social capital, especially to reverse the downward trend of the number and scale of private capital investment in PPP projects ^[2].

Although China has issued a series of tax policies to regulate and promote the development of PPP model, there has been no special tax policies or guidelines for PPP. At the same time, the preferential tax policies related to PPP are not completely reasonable, and there is a lack of clear corresponding provisions to solve the specific problems existing in PPP. In addition, the connection between PPP and tax policy is also not smooth situation.

Scientific and reasonable tax support policy is an important part of the PPP model policy environment, and also an important institutional element that the government and enterprises pay attention to. Optimizing the existing tax policies and systems and further promoting the healthy development of the PPP model is of great strategic significance for promoting the high-quality development of the PPP model.

In view of the special matters mentioned in the PPP model that both the tax enterprises pay high attention to, it is hoped that the relevant departments should clarify the tax application rules as soon as possible, so as to break through the tax obstacles in the PPP model.

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