

2014/SOM3/IEG/DIA/014

Session: 2

Promoting Infrastructure Investment through PPP - The Role of Financial Institutions

Submitted by: China



Promoting Infrastructure Investment Through Public Private Partnership Beijing, China 13 August 2014



Promoting Infrastructure Investment through PPP — The Role of Financial Institutions

Zhang Yanling

August, 2014



PPP Practice in Economic Development



■ Infrastructure development is a driver of economic growth.

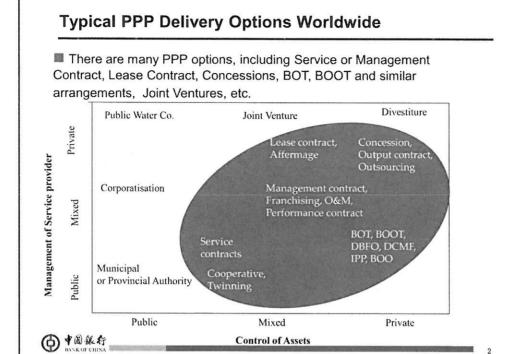


■ The demand of infrastructure development will continue to increase in Asia Pacific economies.



■ PPP model allocates the tasks, obligations, and risks among the public and private partners in an optimal way, therefore offers the best solution in the delivery of public services.





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政治,如人的門 後至江州籍初的門, 市场,如此付,

Implementation of PPPs in China

| Year 1996 | Year 2004 | At Present |
|----------------------|-----------------------------|---|
| In 1996, the | In July 2004, the Chinese | At present, the economic development in |
| Chinese | government enacted the | China has stepped into a new stage. On |
| government | "The Decision on Reform | one side, there still exist some problems of |
| started to promote | of Investment System", | capacity, standard and management in the |
| PPPs in public | enabling the private sector | infrastructure construction. On the other |
| transportation, | involvement in certain | side, the government encourages the |
| water treatment | industries such as | private sector to play a greater role in this |
| and electricity, and | infrastructure, public | field. Under this background, the |
| has achieved | facilities and services. | popularization of PPPs is not only to |
| some progress | | improve public sector services, but also to |
| since then. | | contribute to China's economic growth. |

下线、有到项目 投名转换约 经软条股外 大津海南安山中原 经发行 (3)外 郡堡 (2)外 郡堡 (2)以 郡堡 (2)以 郡堡

传生链额是

PPP Financing

Commercial Banks' Perception of PPP

Optimal Allocation of Risks among the public and private sectors.

Collaborative Mechanism that benefits all parties involved.

Strengthen the Capability of Commercial Banks in Risk Evaluation and Management

(中国銀行

BOC's Experience in PPP Financing

From 1970s, Bank of China has conducted a great number of Onlending Loans from foreign governments and international financial institutions to support infrastructure development, which has brought the innovative idea of PPP into China.

Bank of China has continuously supported infrastructure development by increasing financing commitments for infrastructure industries.



□ 100000 tons Sea-water Reverse Osmosis Desalination Project in Tianjin, China

● 中国银行

BOC's Experience in Overseas PPP Financing I

Bank of China has successfully supported a large number of Chinese enterprises to go global by providing Export Credit Finance to overseas PPP projects with Chinese contractors or suppliers involved .





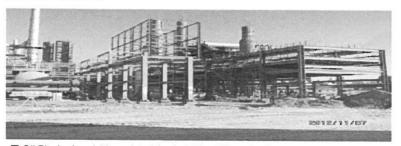
□ 430MW Gas-fired Power Plant and 15 MiGD Sea-water Reverse Osmosis Desalination Project in Salalah, Oman

一种国银行

-

BOC's Experience in Overseas PPP Financing II

Bank of China has successfully supported Chinese enterprises to invest in overseas PPP projects through project financing, lease financing, supply chain financing and other facilities.



☐ Oil Blocks Acquisition related Asphalt Plant Financing Project in Aktau, Khazakhstan

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Advices on Financial Institution's Role in PPP Financing

1

Contribute Professional Competence and Promote Economic Development

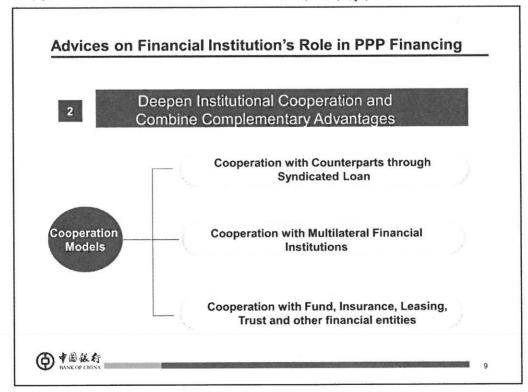
- Contribute professional competence of financial institutions.
- Provide comprehensive advisory services regarding financing arrangement and risk mitigation, etc.

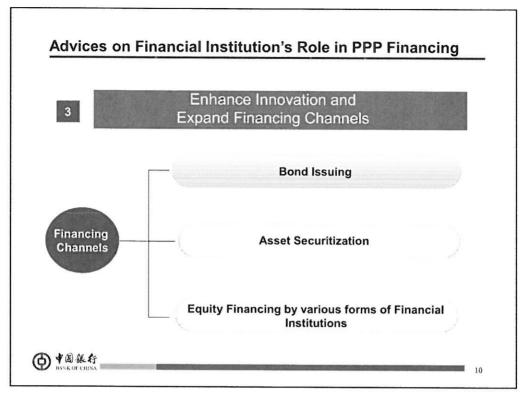
● 中国银行 RANK OF CHINA

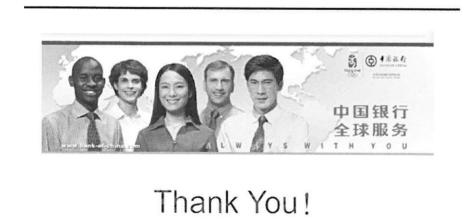
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和(至)险级(教文作

保险,信礼、基础着起也体量的马次多岁ppp







意义 高川如厚草 (3)切, 四分, 等等等。传表 "《节, 法重

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2014/SOM3/IEG/DIA/015

Session: 2

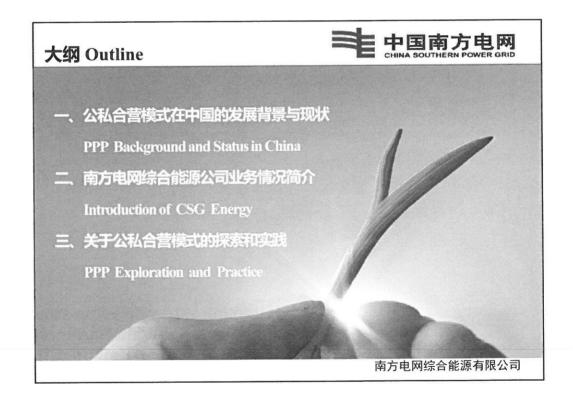
Push Forward Energy Saving in Power Sector by PPP

Submitted by: China



Promoting Infrastructure Investment Through Public Private Partnership Beijing, China 13 August 2014





一、PPP背景与现状



PPP Background and Status

20世纪80年代中期,公私合营(PPP)融资模式首次被引入中国的电厂、高速公路等基础设施领域,最早的如广东深圳沙角B电厂BOT项目。该项目总投资42亿元港币,是国内首个使用BOT融资兴建的基础设施项目,也是第一个成功移交的BOT项目。

PPP was first introduced in power plant and highway in mid 80s of 20th century. The Shajiao B Power Plant BOT project in Shenzhen is the first BOT funded infrastructure project in China with an investment of 4.2 billion HKD.



一、PPP背景与现状



PPP Background and Status







中国市场空间 和潜力巨大 Big market potential in China

发展中国家:PPP在基础设施建设中融资比例 PPP ratio in infrastructure in developing economies

一、PPP背景与现状



PPP Background and Status

中国十八届三中全会明确提出:要**通过改革让社会资本进入**公共服务基础设施建设和运营。可以预见, PPP模式在中国将迎来发展的春天。

The Third Session of the Eighteenth Central Committee of the Party: Allow social capital to enter public infrastructure construction and operation.





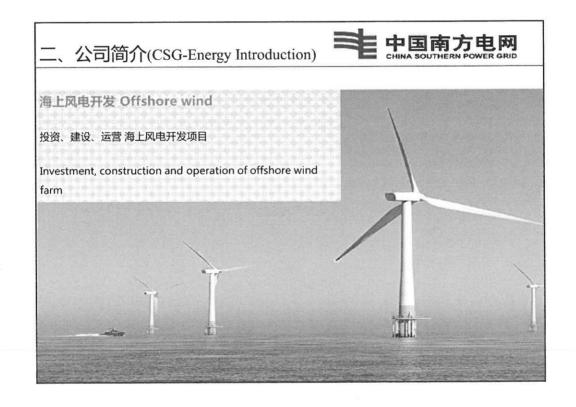
二、公司简介(CSG-Energy Introduction)



自2010年成立以来,已经在广东、广西、海南、贵州、云南、上海等地设立了近20家分支机构。

Since foundation in 2010, we have built near 20 branches in Guangdong, Guangxi, Hainan, Guizhou, Yunnan and Shanghai.





二、公司简介(CSG-Energy Introduction)



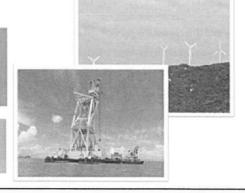
案例:珠海桂山海上风电场与万山海岛新能源微电网示范项目。 Example: Zhuhai Guishan offshore wind farm demonstration project

概况:项目总装机容量198MW,总投资超过40亿人民币。 Install 198MW wind turbines in the close sea area of Zhuhai City with an investment over 4 billion RMB. It is the economy's first integrated project of offshore wind and island smart grid , and the first offshore wind farm in Guangdong Province as well as in China Southern Power Grid.

南网第一个 海上风电项目 **我国首个** 海上风电与海岛新能源智能微 电网应用整合研究项目

我**国首个** 台风海域海上见机及并网 试验志项目

广东第一批 海上风电项目



二、公司简介(CSG-Energy Introduction)

中国南方电网 CHINA SOUTHERN POWER GRID

节能服务(Lucy Efficiency)

面向广大企业和客户,提供高端节能服务

Provide high-end energy saving service to power users

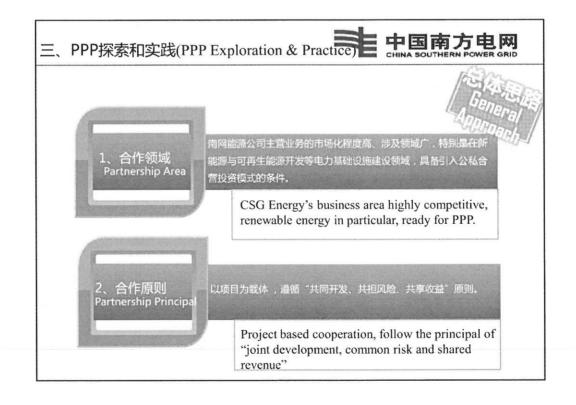
1.提供节能咨询及诊断,工业企业机电设备节能改造等服务;自主研发了"看能建筑能效在线监测分析系统",实施建筑楼宇节能改造;Energy saving audit, consulting and retrofit in industry and building

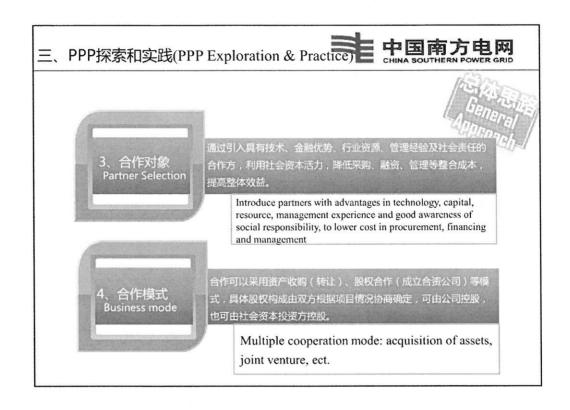
2.研究LED直流供电和智能控制技术,实施室内灯和路灯LED节能改造; LED DC power supply and smart control technology; Indoor and outdoor lights retrofit

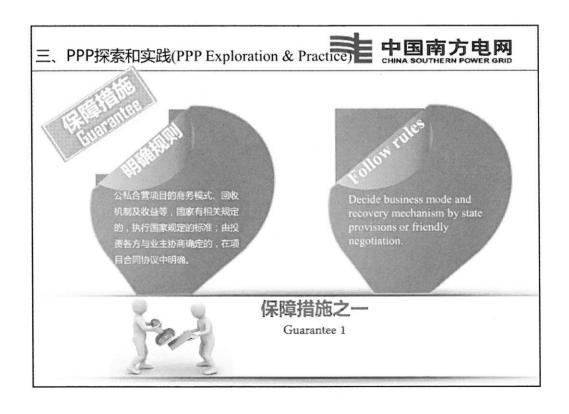
3.在水泥、钢铁等高耗能行业利用生产余热余压发电,提升能源利用效率Waste heat and gas power generation in cement and steel industry



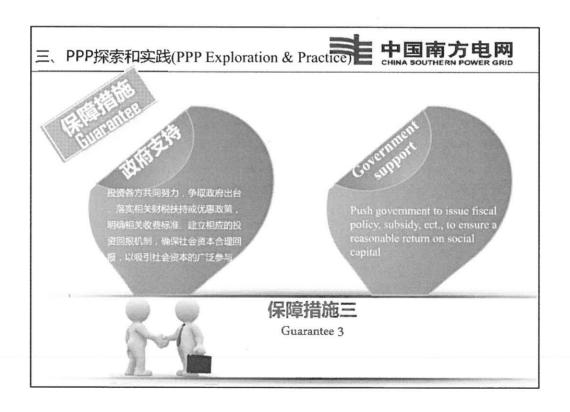


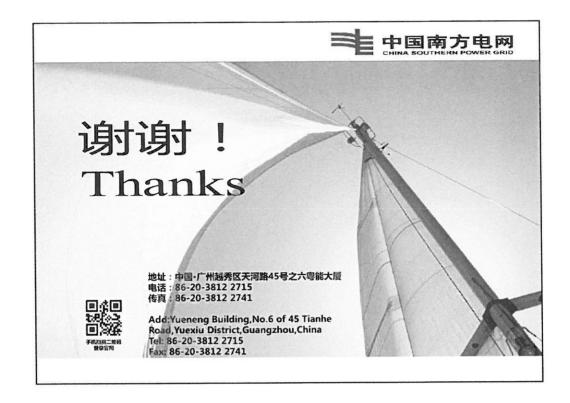














2014/SOM3/IEG/DIA/016

Session: 2

PPP in Power Sector — Opportunity and Challenge

Submitted by: China

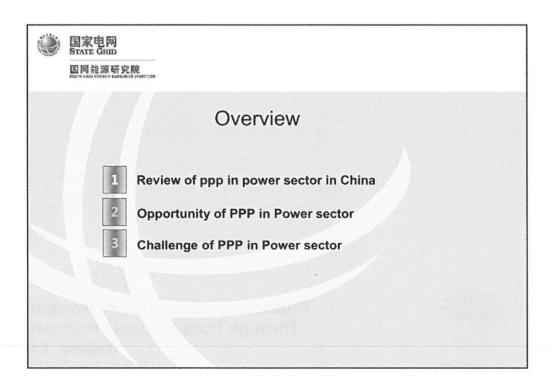


Promoting Infrastructure Investment Through Public Private Partnership Beijing, China 13 August 2014



PPP in power sector Opportunity and Challenge

Wei Bin
State Grid Energy Research Institute, China
2014.8.13





1. Review of PPP in power sector

I. PPP development in Power sector in China

- •There are more 1000 PPP projects since 1990's in China, distributed in transportation, communication, energy and water supply sector.
- · The first BOT project in China was introduced in Power Sector
- (1) First BOT project: Shajiao B Power generation, Guangdong province
 - 2*350MW Coal power generators was put into operation in 1988,
 - Cooperation between Hopewell Holding company and Shenzhen local power utility
 - · 10 years concession, Promise minimum energy purchase and fixed price
 - **Pros:** help the government resolved the budget deficit, alleviated power shortage,
 - **Cons:** process was not formalized, government undertook too much risks, uneven profit allocation between partners.

3



1. Review of PPP in power sector

(2) First BOT pilot project approved by Chinese government : Laibin B power generation, Guan Xi,

In August, 1995, Chinese government issued document about "the approval process and management for Foreign investment Concession Pilot Project", Laibin B power generation is the first pilot approved with BOT model, investment \$ 616 million, 2* 360MW coal power generators.

- •Concession period 18 years. Asset will be transferred in 2015.
- •Private contractor was selected through biding process.
- Rational Pricing mechanism
 - up-grid price is a key criteria of the tender, weighted 60%.
 - · Pricing formula, price adjusted with coal price and currency exchange rate
- Take or pay contract, the minimum generation is 3.5Twh.
- Sharing risk and profit between partners.



1. Review of PPP in power sector

II. Lessons learned

BOT project played a positive role in infrastructure development in China in 1990's. In the late 1990's, the power demand growth was slowing down, the power utility was reformed into enterprises, and the market oriented reformed introduced in 2002, there was no new BOT project in the following years. from ShajiaoB ,and LaibinB , we see a successful BOT should:

- · Share profit and risk between government and private investor
- · Institutional support from the government
 - · clear and open process
 - · clear definition of responsibility of both parties
 - · stable policy

5



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2. Opportunity of PPP in power sector

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- I. The government encourage PPP in infrastructure
- " Old 36 items" in 2005
- "New 36 items" in 2010, and Implement rules in all sectors, including energy sector.
- Mixed economy reform: Promote the non state owned capital in the central enterprises to invest and enter the franchise, and develop franchise rules. stated in April, 2014.
- · 80 projects open to private investment, energy related including
 - Hydro power plant
 - Renewable generations
 - Oil and gas infrastructure

For the infrastructure project, selected private investment through biding .

Ministry of Finance encourage PPP project, and selected several pilot cities.



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2. Opportunity of PPP in power sector

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II. The advantage of PPP in infrastructure

- Increased efficiency in project delivery, and operation and management
 - better governance, clear responsibility
 - market operation mechanism
 - Flexible HR management ,etc
- Availability of additional resources to meet the growing needs of investment in the sector
- Access to advanced technology through select qualified private company.
- In new area, PPP project help to plan, decide appropriate project structure and choice of technology considering cost over the whole life cycle of the project.
- Reduce the government intervention as an owner, help government pay more attention to supervise ,and social management ,



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2. Opportunity of PPP in power sector

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III. Opportunity in power sector

- · Market oriented reform is under going
 - Generation was separated from the grid
 - Free entry in competitive business, government abolish right of approval
 - Direct trading between generator and large consumer.
- Mixed Economy institutional reform, will allow private capital invest the franchise business which is state-owned or local government owned. Such as local distribution and supply business.
- New business is promoting
 - The distributed energy and network
 - The filling and charging facility for Electric vehicles
 the new policy of new energy cars encourage the public organization purchase E-car , it may increase 40,000 new E-cars every year.



国家电网

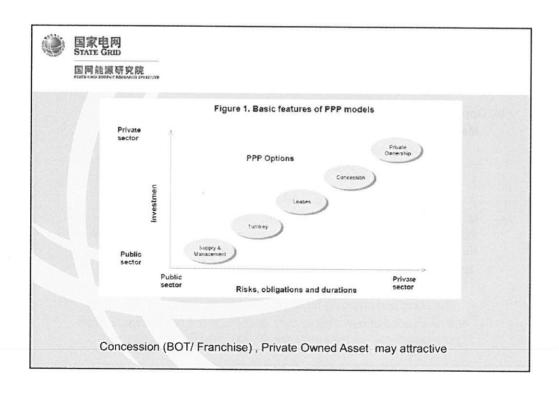
3. Challenge of PPP in power sector

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I Properly select business and models to implement PPP PPP Value assessment is important

- Lack money is not the main concern now in power sector for PPP
- PPP project may induce higher investment and fees
 - Financial cost is higher for private company compare with government or large State owned company.
 - Administrative costs for the management of PPP contracture regims
 - Other transaction fees (negotiation when the rules not specified)
- When efficiency gains from improved project delivery, operation and management, and access to advanced technology can offset the abovementioned additional costs
- · New business needs more PPP

German put forward " national plan for E- vehicles" and select 4 cities as pilot , the federal government , city government and involved company share the investment , and PPP model , the company with technology innovation strength participate ,such as B&M





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3. Challenge of PPP in power sector

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Il Government should make substantial support

- (1) develop laws and regulations on PPP process
- purchase and bidding process
- project approval
- Tendering and contract format document ,etc.
 - (2) Government provide healthy policy environment

Different type of business has different requirement, government should give different support:

- Competitive business ,such as conventional power generation ---promote fair competition market .
- Monopoly business, such as transmission and distribution ---- Franchise contract and proper pricing mechanism
- New business, such as recharging facility ---- financial support from government can made the project viable to attract private company.



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3. Challenge of PPP in power sector

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III Efficiency Regulation for franchise PPP in power supply

- Power supply is Quasi public goods
 - free trade in energy
 - · transmission and distribution services as public goods
- Pricing Regulation
 - · unbundling price
 - Proper pricing mechanism consider continued investment and retrofit, the technology innovation such as smart grid, the demand growth etc, it is more complicated than generation.
- Supply Standard supervision
 - · Reliability, and availability of power supply
 - the access to the grid, connection process
 - · outage repair
 - service quality (billing / connecting / settlement ,etc)



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3. Challenge of PPP in power sector

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- Universal service
 - Specify the responsibility of universal service providing (for rural area, for poor family etc)
 - Compensation of the universal service (now is through cross -subsidy pricing, it should be through direct subsidy in the future)
- Social Obligation
 - · Provide disaster relief . Enhancing power supply in major activity
 - · Compensation and supervise the expenditure
- · More work we should do
 - · All above should be specified in contract or regulation rules.
 - · Regulation capacity building
 - · Regulation regime and laws development



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Conclusion

- PPP played a positive role in the years with power shortage in China
- PPP in power sector now is entering a new phase, needs efficiency improvement and technology innovation, rather than money.
- With the power sector reform put forward, PPP has more opportunity in power sector, especially in the new business
- · The regulation capacity should be enhanced for PPP implement



Thank you for your attention Welcome comments



2014/SOM3/IEG/DIA/017

Session: 3

Papua New Guinea Experience with PPP Infrastructure

Submitted by: Papua New Guinea



Promoting Infrastructure Investment Through Public Private Partnership Beijing, China 13 August 2014



PAPUA NEW GUINEA EXPERIENCE WITH PPP INFRASTRUCTURE

Siang Kee Lim Director Business Council of Papua New Guinea



OUTLINE

- 1. Current state of infrastructure development
- 2. PPD framework on infrastructure
- 3. PPP framework on infrastructure
- 4. Conclusion
- 5. Way forward for APEC cooperation



1. Current state of infrastructure development

- · Government Policy of Economy:
 - 2/3 of the budget's capital of the economy expenditure on infrastructure (Kina 9 billion / USD 3 billion)
 - Roads, sea and air ports
 - Upgrade on utility assets of State owned enterprises
 - Broadband network of the economy
 - Health and education facilities



2. PPD framework on infrastructure

- Policy formulation is established by 3 key PPD frameworks :
 - . Strategic Policy Making
 - * Working Group Improving Investment and Business Climate
 - . Selection and operational aspect of infrastructure development
 - *Infrastructure Committee of the CIMC .
 - . Infrastructure Development Authority
 - * Update on projects



3. PPP Framework on Infrastructure

- Urgent High Impact Projects
 - Regulatory flexibility in creating "sunset legislation".
- Medium Long Term
 - Via Tender Board and guided by PPP draft rule.



4. Conclusion

- PPD must be robust to ensure that infrastructure expenditure will yield growth. The BigMan syndrome has a tendency to influence these projects and denies business opportunities to future generations.
- PPP requires transparency for fair competition.



5. Way Forward for APEC Cooperation

- Establish APEC "value and supply chain hubs" that should be accessible to all members and have technical assistance to make them effective gateways
- Appropriate international instrument to promote and protect capital and to encourage cooperation to partake in infrastructure projects.



2014/SOM3/IEG/DIA/018

Session: 3

Way Forward: Recommendations for APEC Future Cooperation

Submitted by: Macquarie Group



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Way Forward: Recommendations for APEC Future Cooperation

Geoff Raby

Enhancing PPD

- Focus on shared goals
 - Development
 - Trade & Investment
 - Regional Co-operation
- · Ease of dialogue: engaging communities
- In the APEC regional context:
 - Large differences in levels of development: capital constraints
 - Target private sector/industry leader decision makers

Methods of promoting PPP

- Emphasise benefits of PPD
 - For private sector:
 - Feedback/follow-up on how PPD has had an effect
 - Quell environmental risks of market entry- especially in emerging markets or in developing economies where policy, trends etc. are continuously changing
 - For public sector:
 - · Foster investment in public projects
 - Foster support for government/policy and implementation
 - · Creating effective- first-time regulatory framework
 - · Higher levels of participation, transparency and legitimacy

家好之作心居例 约约制造农业 心经代况性 (更新,查如意) 年经习的分提例

The state of

Targeted goals

- Working across established/emerging economies means developing innovative methods on
 - Business climate
 - · Share experience and create discussion spaces
 - · Increase cross-regional access to credit
 - · Regional dispute settlement
 - Cross-border investment
 - · Create new models of offtake
 - Incentivise private sector for exploratory activity and investment
 - Infrastructure goals
 - Identify key projects and develop innovative investment instruments