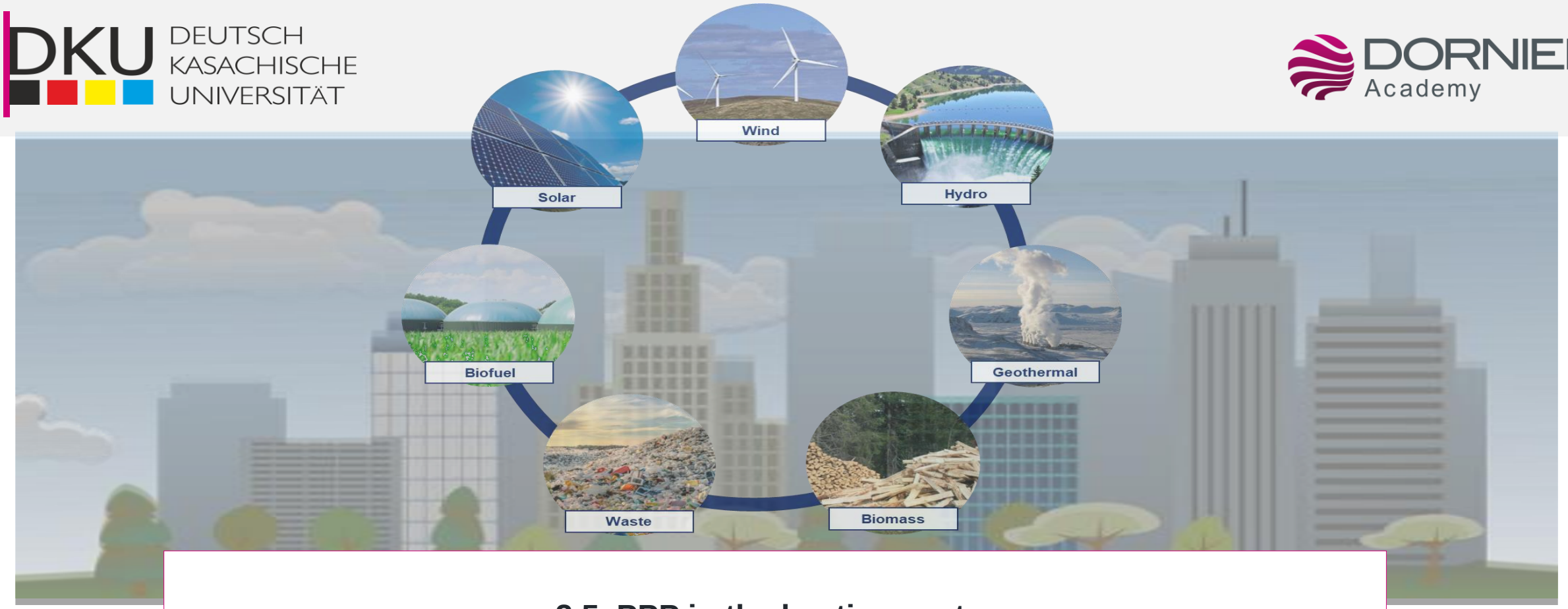


2.5. PPP in the heating sector

Maria Tan Pedersen

Modern heating sector - international trends and challenges for the Republic of Kazakhstan. Webinar Course in connection with the preparation of the "Law on Heating"


Public Private
Partnership

(1) What is PPP?

Definition

The PPP Knowledge Lab* defines Public-Private Partnership broadly, as:

- "*A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.*"

*Launched in 2015 by the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IaDB), the Islamic Development Bank (IsDB), and the World Bank Group, with the support from PPIAF, the PPP Knowledge Lab brings together the most relevant and authoritative resources on public-private partnerships in one location to empower governments and their advisors to design and deliver best-in-class infrastructure projects.

(1) What is PPP?

Forms of PPP

Transfer of responsibility for service provision

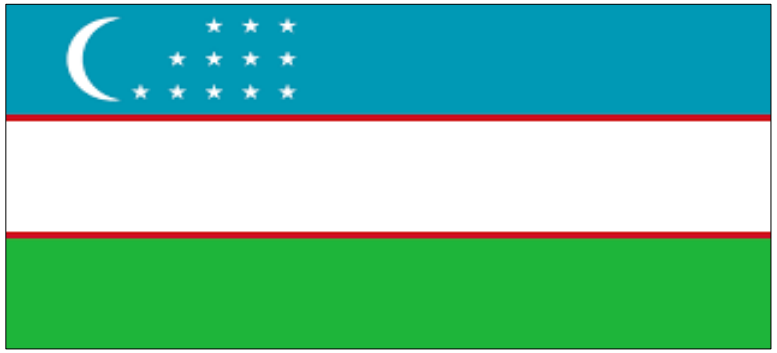
Form of PPP	O&M	Payment for Services	Capital Investment	Asset Ownership	Greenfield/ Brownfield	Typical Length
Management Contracts	Private	Public	Public	Public	Brownfield	1-15 years
Leasing	Private	Private	Public	Public	Brownfield	10-30 years
Concessions	Private	Private	Private	Public	Both	20-50 years
Privatization	Private	Private	Private	Private	Both	Indefinite (unless limited by license)

(1) What is PPP?

Successful PPP in Central Asia

Uzbekistan

- Recent and dramatic reform of PPP sector with new law introduced in 2019;
- Multiple closed PPP projects, across health, energy, and heating sectors;
- Geographic, economic, and social analog to Kazakhstan.



(1) What is PPP?

Successful PPP in Central Asia

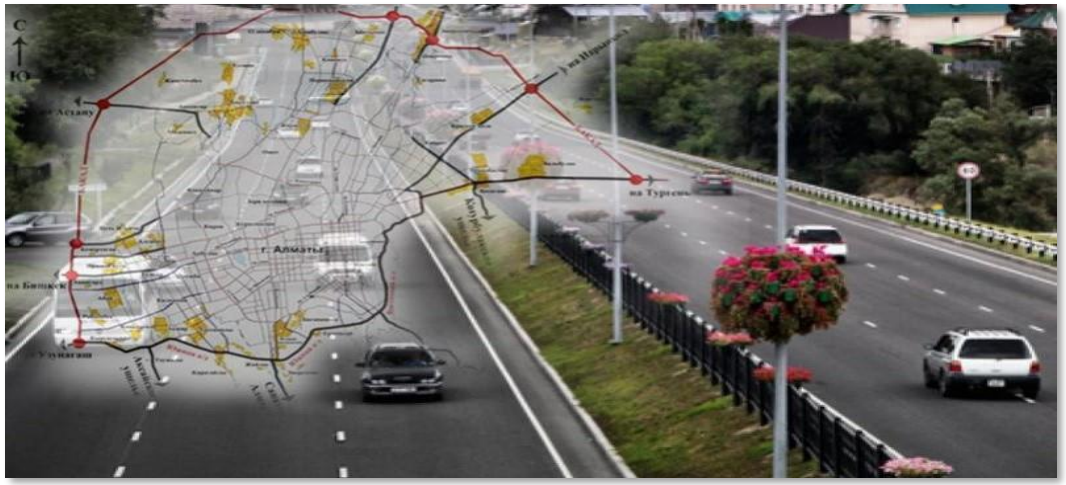
Project Description	Construction and operation of two photovoltaic solar parks
Jurisdiction	Jizzakh and Samarkand region, Uzbekistan
Bids	Seven bids for the Jizzakh site; Six proposals for the Samarkand site
Tender Winner	May 2021: ▪ Abu Dhabi Future Energy Company PJSC (Masdar) was awarded the project in the Samarkand region with a bid to supply solar power at 1.791 US cents per kilowatt hour. ▪ Abu Dhabi Future Energy Company PJSC (Masdar) was awarded the project in the Jizzakh region with a bid to supply solar power at 1.823 US cents per kilowatt hour
Government Agencies	The Ministry of Investment and Foreign Trade, the Ministry of Finance, and the Ministry of Energy designed and tendered the PPPs
Transaction Advisor	
Outcome	These PPPs will soon add more than 400 megawatts of clean and renewable ene IFC untry's energy mix.

(2) PPP in Kazakhstan

Previous PPP Projects

- Legal concept of PPP has existed in Kazakhstan since 1991 – first law “on concessions”

As of July 2019, more than 500 PPP agreements concluded – KZT1.29 trillion (US$3.34 billion)



66 km *Big Almaty Ring Road* (a toll road, known as BAKAD, around the city of Almaty), the largest PPP project implemented in Central Asia to date

300 bed Karaganda Hospital

(2) PPP in Kazakhstan

Legal Framework

Kazakhstan's Laws on PPP

- the Civil Code,
- the Law "On Concessions",
- the Law "On Public-Private Partnership", and
- other regulatory legal acts.

- Peculiarities of legal regulation of PPP in certain sectors (areas) of the economy are established by the special laws of the Republic of Kazakhstan, e.g.:
  - the Code "On subsoil and subsoil use",
  - Code "On the health of the people and the healthcare system",
  - etc.

- Project financing within PPP or concession is regulated and carried out in compliance with the requirements provided for by the Law of the Republic of Kazakhstan "On project financing and securitization".

(2) PPP in Kazakhstan

Legal Framework

Key PPP Authorities

- **Government of the Republic of Kazakhstan**
  - Determines public policy in the field of PPP and the direction of implementation of those policies.
- **The Ministry of National Economy, the Ministry of Finance, as well as the authorized state bodies of the relevant sectors**
  - Implements the state policy in the field of PPP within their competence.
- **Local executive bodies of regions, cities of republican significance, and the capital**
  - Implements public policy in the PPP field and monitors PPP contracts and the implementation of local PPP projects.
- **Kazakhstan PPP Center**
  - Develops and improves PPP legislation, provides information support to PPP investors and other stakeholders, examines and evaluates budget investment projects, and provides advisory services for PPP documentation.

(2) PPP in Kazakhstan

Legal Framework

- Key main provisions of and differences between the Law "On Public-Private Partnership" ("**PPP Law**") and the Law "On Concessions" ("**Concessions Law**"):

Kazakhstan's Legal Framework for PPP		
	Concessions Law	**PPP Law**
Adoption and Amendment	2006; Amended 30 times	2015; Amended 12 times
Scope	"Concessions," defined as activity aimed at construction/renovation and operation of a facility, performed at the expense of a concessionaire or with co-financing by the grantor.	PPP defined by inherent characteristics, including (i) relations between the public and private sector partners in the form of a PPP agreement, (ii) medium-term or long-term PPP project implementation, (iii) joint participation of the public and private sector partners in project implementation, and (iv) resource sharing by the partners to facilitate project implementation. As the PPP Law does not contain an exhaustive list of types of PPP, under Kazakh law, a PPP can take any legal form so long as it meets the required characteristics of a PPP.

***PPP Law, Article 7.3 –**

The Concessions Law applies to concessions "*to the extent not covered by the PPP Law*".

(2) PPP in Kazakhstan

Legal Framework

Kazakhstan's Legal Framework for PPP		
	Concessions Law	**PPP Law**
Parties	Concessor and concessionaire	One or several public and private partners
Public partner	Authorized state bodies on behalf of the Republic of Kazakhstan (no quasi-public sector entities)	Authorized state bodies or quasi-public sector entities ≥50% of the shares of which are directly or indirectly owned by the state on behalf of the Republic of Kazakhstan
Private partner	Any individual, even foreigners, conducting entrepreneurial activity and/or legal entity (except for state institutions or "corporations of the quasi-public sector")	Same as Concessions Law, save that an individual must procure individual entrepreneur status
Private partner selection process	One-step tender or two-step tender; No direct negotiations	• Open tender; • Tender with simplified procedures (only for local PPP projects and under certain conditions); • Two-step tender (required for "technically complex and/or unique PPPs); or • Direct negotiations
PPP Term	Up to 30 years; No minimum period specified	Minimum period of 5 years, maximum period of 30 years

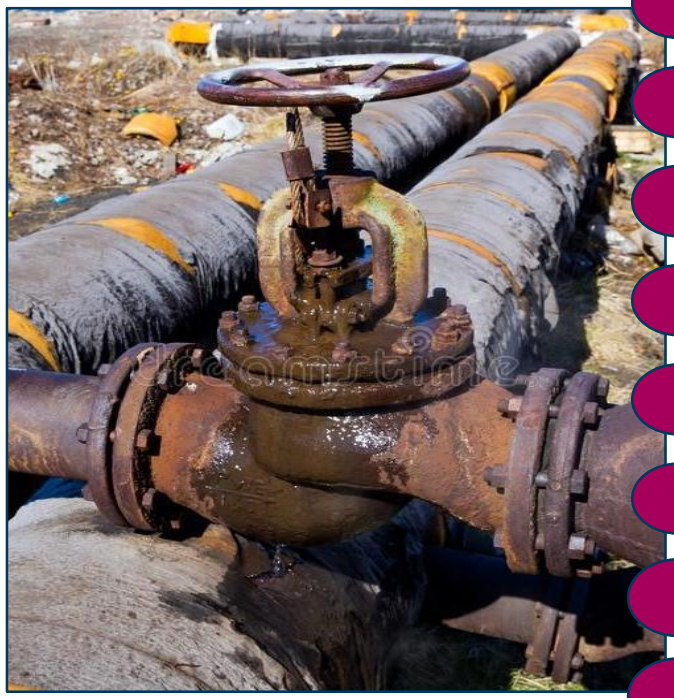
(2) PPP in Kazakhstan

Legal Framework

Kazakhstan's Legal Framework for PPP		
	Concessions Law	**PPP Law**
PPP Object	Any property that is 'social and vital infrastructure facility' constructed (or reconstructed) and operated under a concession agreement. 'Social and vital infrastructure facilities' are facilities [or] complexes of facilities used for the satisfaction of public needs, the securing of which is imposed on state authorities in accordance with the legislation of the Republic of Kazakhstan	Practically any property can be considered as the PPP object
Governing Law	Only Kazakhstan	Discretion, if private partner is non-resident
Arbitration	Only 'concession projects of special importance' can benefit from international arbitration, provided at least one shareholder of concessionaire is non-resident	Only projects the cost of which is > 4 mln times the MCI established for the corresponding financial year (approx. US$ 26,235,546 in 2022) can benefit from international arbitration, provided the private partners is non-resident or at least one of its shareholders (participants) owns ≥25% of voting shares (participatory interest)
Direct agreement	Only available for 'concession projects of special importance'	Only available for 'projects of special importance'
Termination right	State partner has right to unilaterally change conditions or terminate concession if in interests of society and state	State partner has **no** right to unilaterally change the contract, but may terminate the concession if in the interests of society and state

(3) Kazakhstan's Heat Sector Problems

Kazakhstan's heating sector is characterized by:



- aging infrastructure, dating back to the Soviet era;
- inefficient and non-environmental fuels (e.g. *mazut*);
- poor infrastructure performance;
- frequent service disruptions for consumers (particularly in winter);
- significant heat system losses (as high as 30%);
- low returns on investment for sector participants – insufficient tariffs;
- lack of strategic directions, systematic development, and implementation of innovations; and
- insufficient public funds to rehabilitate.

(3) Kazakhstan's Heat Sector Problems

- The heating sector is a huge drain on state resources, as there is a constant need to subsidize operations.

Refurbishment and modernization –

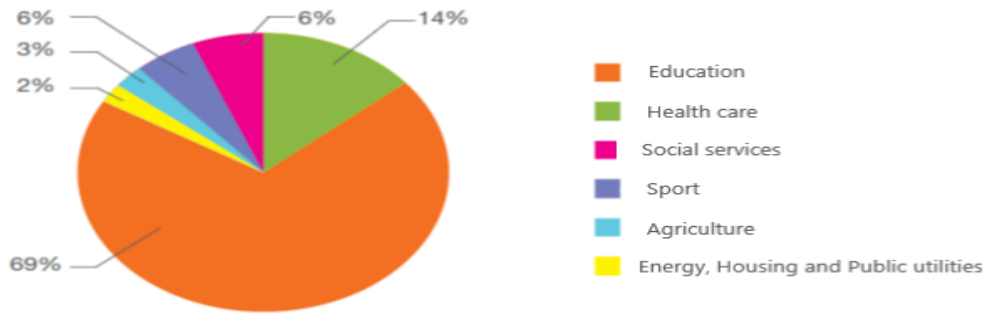
US$100 billion over 10 years

(3) Kazakhstan's Heat Sector Problems

Despite its relatively lengthy experience with PPP projects, Kazakhstan has so far not been very successful in applying the instrument of PPP in the heating sector.

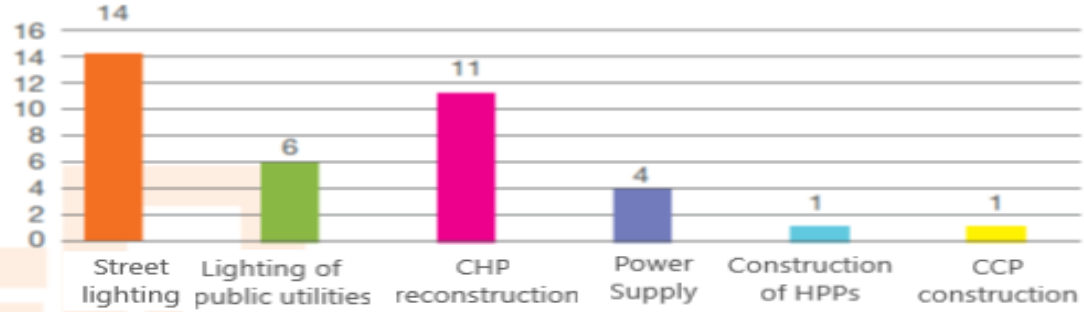
- PPP mechanisms applied in only 1-5% of the total number of implemented projects in the heating sector.

Figure 1. Number of concluded contracts for PPP projects in different sectors at the beginning of 2018



Source: Official website of the Ministry of National Economy of the Republic of Kazakhstan

Figure 2: Areas of PPP in the energy sector



Source: Kazakhstan Public-Private Partnership Center

(3) Kazakhstan's Heat Sector Problems

Potential Benefits of PPP

Technical Know-how	• Technical, managerial, and commercial skills • Projects managed for maximum profitability • Predetermined performance and investment obligations
Increased Financing	• Access to private sector financing • Proven track records of good asset management
Sector Innovation	• Sector-wide management and technical improvements • Local operators adopt innovative methods and techniques implemented by private partners
Risk Allocation	• Optimization of risk allocation. • Risks go to party "most able to manage them" • Optimization over the project lifecycle

(3) Kazakhstan's Heat Sector Problems

Potential Benefits of PPP

Political Insulation

- Management decisions can be separated from political considerations
- Improved efficiency and service quality

Overcoming Investment Hurdles

- High initial costs
- Limited state/municipal budgets

Virtuous Cycle

- Structure for future private investors →
- Increased investor confidence →
- More investment

(3) Kazakhstan's Heat Sector Problems

Potential Benefits of PPP

*These benefits are particularly important for "transitioning" jurisdictions like Kazakhstan

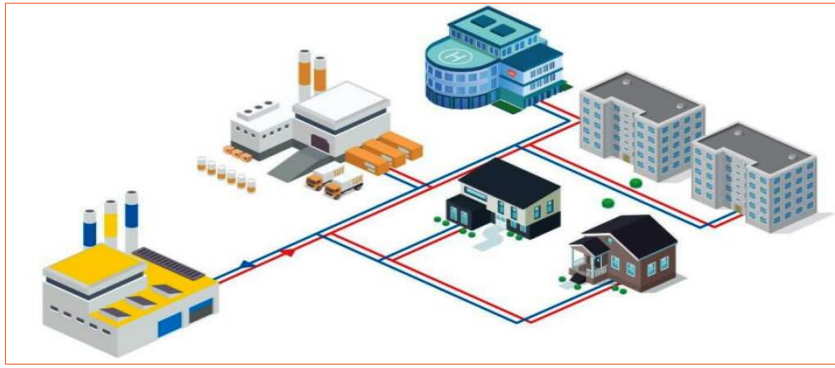
Technological Transition

Inefficient and pollutant methods of heat distribution and generation → Efficient and "green" methods of heat distribution and generation

Political/Economic Transition

Soviet, centrally planned economy → Open, free market economy

Scenario – “Anatsa”



- The city of “Anatsa,” Kazakhstan has a district heating system that was first constructed in 1985.
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- Heat for Anatsa’s DH system is generated by two black oil-fired boilers.
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- Both the DH system and the boilers are managed by the municipal enterprise Anatsa Heat Co.
  - Anatsa Heat Co. is 95% directly owned by the municipal government.
  - The remaining 5% was recently purchased by the main, local electricity producer, which is exploring the viability of CHP.

Survey 1

<u>Question 1</u>: If you were the Akim of Anatsa, would you pursue a PPP in this scenario?

A) Yes

B) No

<u>Question 2</u>: What would be the primary benefit of pursuing a PPP for this project, rather than traditional public procurement?

A) Access to private international know-how

B) Increased access to project financing

C) Increased likelihood of innovative project solutions

D) Minimized risks taken by government

E) Reduction of political considerations in project management

F) Ability to fund significant upfront costs of construction/rehabilitation

<u>Question 3</u>: What would be the most significant barrier to pursuing a PPP in this situation?

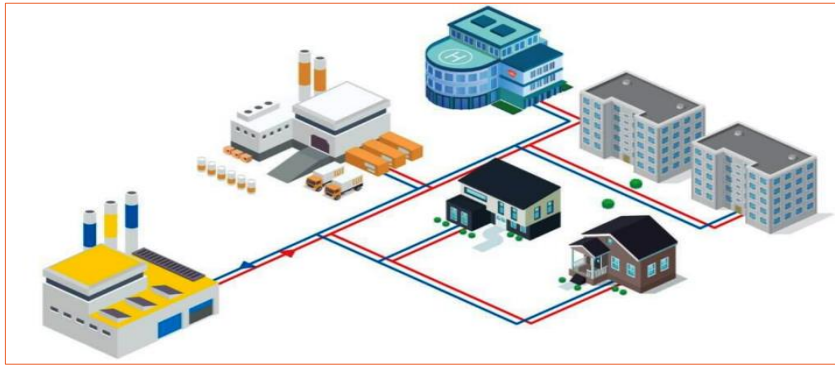
A) Confusing legal framework for PPP

B) Lack of familiarity with PPP among stakeholders

C) Lack of PPP capacity in government

D) PPPs just aren't suitable for Kazakhstan

Scenario – “Anatsa”



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(4) PPP in the Heat Sector

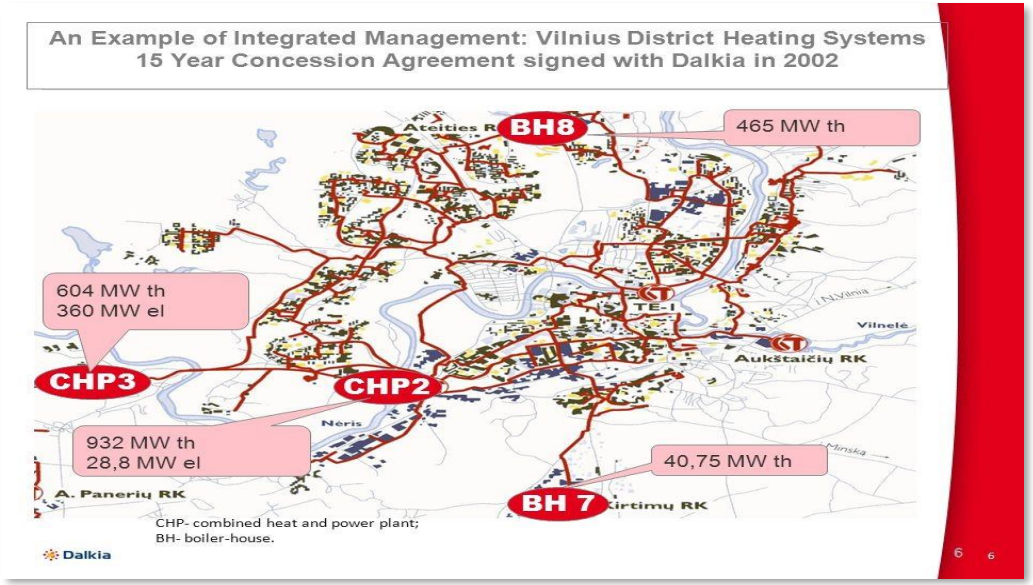
Precedent PPPs in the Heat Sector

Management Contract

Kolpino CHP Plant – St. Petersburg, Russia

- Long-term service agreement between Fortum and plant owner
- Optimization of the service strategy, streamlining of the O&M organization, and provision of IT systems

Leasing Arrangement



City District Heating Network – Vilnius, Lithuania

- 15-year lease of DH system
- Goal of reconstruction of the heat network, elimination of group heat substations, reconstruction of boiler houses, and innovative solutions for remote data collection and monitoring system

(4) PPP in the Heat Sector

Precedent PPPs in the Heat Sector

Concession

Capital DH system – Tashkent, Uzbekistan

- Concession for Veolia to modernize DH system
- 2-year initial pilot program for residential connections to DH system

Privatization

Poland district heating – Poznan, Poland

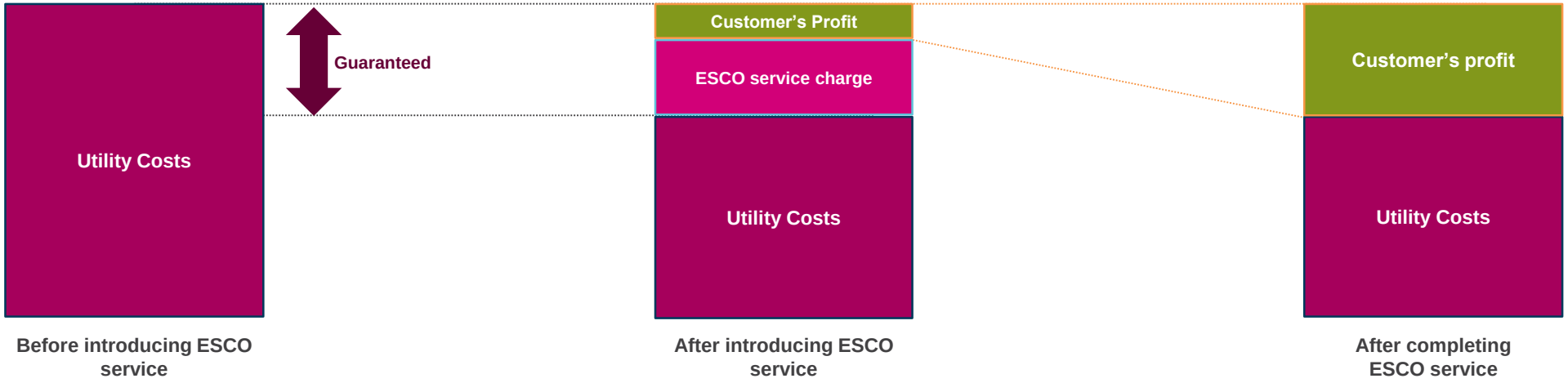
- Dalkia acquired majority ownership of municipally owned DH assets, including both heat generation and distribution

(4) PPP in the Heat Sector

Precedent PPPs in the Heat Sector

Energy Service Companies (ESCOs)

- Provides energy services to end-users, such as the supply and installation of energy-efficient equipment, building refurbishment, or both;
- Guarantees energy savings and/or reduced heating bills to end-users who utilize its services;
- The remuneration tied directly to the energy savings achieved by the end-users who implement the ESCO's energy saving measures;
- ESCO assumes up-front risk of energy efficiencies in its economic model and is thereby motivated to achieve the targeted energy efficiency improvement for the end-user



(5) Overcoming Weaknesses and Gaps

Key Barriers and Gaps

Gap #1 Overlapping PPP Legislation

Gap #2 Non-International Legal Provisions

Gap #3 Regular and piecemeal changes PPP laws

Gap #4 Lack of Project Selection Criteria

Gap #5 Inexperience of government organizations with PPP

Gap #6 Misuse of PPP Mechanism

Gap #7 Lack of long-term and affordable loc financing

Existing Kazakhstan PPP framework

Good international practices

(5) Overcoming Weaknesses and Gaps

Key Barriers and Gaps – Legislation

Gap #1
Overlapping PPP Legislation

The PPP legislation consisting of the Concessions Law, the PPP Law, and their operating regulations is characterized by a lack of clarity, vagueness of the wording and criteria, and potential overlap or inconsistency in governing regulation. For example, according to paragraph 3 of Article 7 of the PPP Law, the provisions of the Concessions Law shall be applied to the extent not otherwise regulated by the PPP Law. The arbitrary division of PPP regulation across can cause unnecessary confusion to potential (particularly foreign) investors.

Gap #2
Non-International Legal Provisions

Limits such as the Concessions Law's requirement for contracts to be governed by Kazakhstan law and international arbitration be available only for projects "of special importance" contravene expectations of international private partners, who require flexibility in choice of law and dispute mechanisms.

Gap #3
Regular and piecemeal changes PPP laws

Both the Concessions Law and the PPP Law are subject to frequent changes. The Concessions Law has been amended 30 times in 15 years, while the PPP Law has been amended 12 times in the 6 years of its existence.

Gap #4
Lack of Project Selection Criteria

At the moment, Kazakhstan's PPP legislation lacks clear, understandable, and transparent technological and economic criteria for a public authority to determine the best private partner for a PPP project.

(5) Overcoming Weaknesses and Gaps

Key Barriers and Gaps – Implementation

Gap #5
Inexperience of government organizations with PPP

Low professional level of some officials and officers of authorised organisations working in the field of PPP and investments. Monitoring by regional and central authorities is minimal, and there are no criteria for assessing the performance of akimats and awarding them a rating with respect to: (i) financing unprofitable utilities, (ii) implementing PPP projects in the heat sector, and (iii) using cross-subsidies (e.g. multiple increase in tariffs for budget organizations).

Gap #6
Misuse of PPP Mechanism

A lack of relevant competencies within such authorities can lead to the selection of wrongly suited PPP projects and/or private partners. Similarly, the use by provincial officials of “fake” PPPs (i.e. government-funded infrastructure projects styled as PPPs but insufficiently funded to meet the government party’s obligation) have, in recent years, lead to an over-emphasis on quantity of PPPs over quality.

(5) Overcoming Weaknesses and Gaps

Key Barriers and Gaps – Financing

Gap #7
Lack of long-term and affordable local financing

Commercial banks in Kazakhstan are often unwilling to finance PPPs and state budgets are severely limited.

(5) Overcoming Weaknesses and Gaps

Reducing Regulatory Uncertainty

Problem	Action	Result
Overlapping PPP legislation adds extra steps to investor analysis of the relevant law, potentially complicating their decision to invest.	Analyze and consider amendments to both the Concessions Law and the PPP Law, and their relevant bylaws to ensure that investors (particularly foreign investors) can promptly and easily determine the regulations applicable to their potential PPP projects	Greater regulatory certainty should naturally result in increased private sector involvement in the sector.
Lack of incentives for private partners to invest in heating sector PPPs.	Enact policies and laws governing the heat sector that, among other things: (i) ensure that applicable heating tariffs allow investors to cover the full range of their costs, (ii) provide payment incentives to operators, either through legislation or PPP contracts, for heating efficiency improvements, (iii) guarantee heating sector regulators' independence from ownership and management of the relevant PPP assets, and (iv) promote social protection programs, thereby allowing low-income households to purchase heat from the private partner in an affordable manner.	Such incentives, in line with international expectations, should result in increased private sector involvement in the sector.

(5) Overcoming Weaknesses and Gaps

Improving Implementation

Problem	Action	Result
Lack of criteria for what constitutes a desirable PPP project in the heating sector.	The government should definitively define, in law and/or regulation, the meaning of a "quality" PPP project with distinct criteria which conform with policy goals. For example, "quality" should not be equated simply with the absence of requests for any financial support from the public sector, nor should "quality" exclude large-scale infrastructure projects backed by the state budget.	Local government officials will have objective criteria to assess potential PPP projects, including unsolicited projects.
Insufficient local professional experience with PPP.	The government should institute PPP training and capacity building among regional and local officials, so that they can more accurately assess whether a project is appropriate for a PPP modality and, if so, whether such that project is compatible with budgetary constraints.	Local government officials will have the training necessary to select effective PPP projects.

(5) Overcoming Weaknesses and Gaps

Improving Implementation

Problem

Lack of PPP models.

Action

A strong PPP project pipeline should be adopted to provide model projects for future reference and the continued development of PPP in the heating sector. Additionally, separate regulatory documents (such as standard trust agreements for heat sources, heating networks, leasing of energy-saving equipment and technologies; model contracts for new construction of heat sources, operation of existing heat sources and networks, and delivery of heat to end-users, etc.) should be developed with input from heating sector stakeholders and promulgated by PPP decision makers, taking into account the specifics of the heating sector, for use by government officials when executing heating sector PPPs.

Result

Consistency of high-quality PPP projects throughout the heating sector and across local jurisdictions. Flexibility when assessing different models of PPP, such as ESCOs.

(5) Overcoming Weaknesses and Gaps

Improving Implementation

Innovative models

Kazakh ESCO was org
Kazakhstan in 2009.

Ergonomika" with the
implemented a project
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has shown good resu
ts for heating energy a
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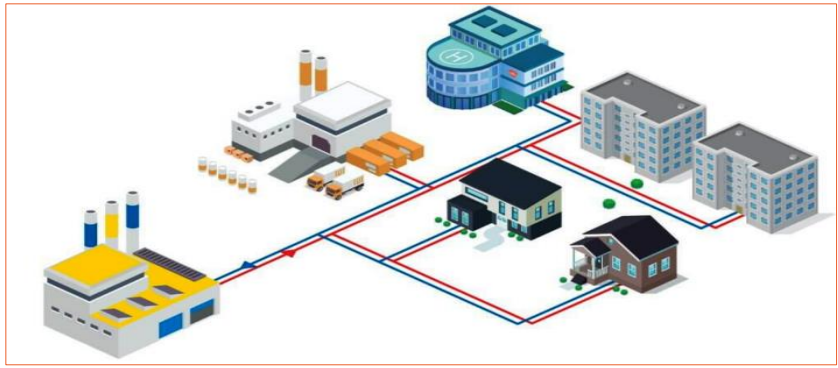
Scenario – “Anatsa”



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Survey 2

<u>Question</u>: The Akimat of Anatsa has decided to offer the project as a PPP with the goals of (i) rehabilitating and modernizing DH system and (ii) constructing a new heat generation plant. You have been hired as a project consultant. What form of PPP would you advise to pursue in this scenario? Why?

A) Management contract

B) Leasing contract

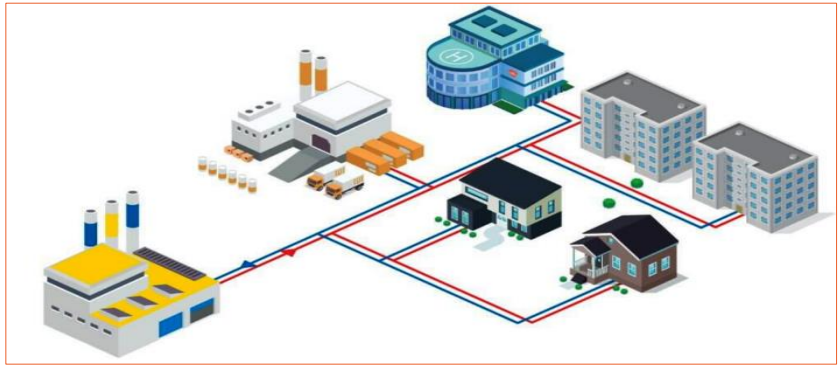
C) Concession

D) Privatization

E) ESCO

F) Other

Scenario – “Anatsa”



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Thank you for your attention!

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