ACKNOWLEDGEMENTS

The secretariat wishes to thank the following people for their contributions to this report, namely, Stephen Watson, Stephen Watson (IPA Infrastructure & PPP Advisory), Vladimir Naumov (Alstom Power) and the staff of the PPP Centre Kazakhstan. The secretariat also wishes to express its appreciation to Vladimir Naumov who acted as translator and leading consultant in Astana. The secretariat team was led by Jan van Schoonhoven.

The secretariat is grateful to the Eurasian Development Bank for its financial support in the preparation of this assessment.
# Table of Contents

Table of Contents

1. Introduction .................................................................................................................. 6
   1.1 Green PPPs .................................................................................................................. 6
   1.2 The UNECE PPP assessments in Kazakhstan .......................................................... 7
   1.3 Structure of the PPP assessment .............................................................................. 8

2. Strategy 2030 for Kazakhstan ...................................................................................... 9
   2.1 Introduction ................................................................................................................. 9
   2.2 Status in Kazakhstan ................................................................................................ 9
   2.3 Conception of Kazakhstan on transition to green economy ................................. 9

3. What are Public-Private Partnerships (PPPs)? ............................................................ 11
   3.1 Introduction on PPP .................................................................................................. 11
   3.2 PPP at the UNECE ................................................................................................... 12
   3.3 The advantages of PPP ............................................................................................ 12
   3.4 Traditional Procurement versus PPP ..................................................................... 13

4. PPP development in Kazakhstan .............................................................................. 15
   4.1 Introduction .............................................................................................................. 15
   4.2 The Centre of PPP (Kazakhstan) ............................................................................ 17
   4.3 PPP Enabling Environment .................................................................................... 20
   4.4 Policy development, dissemination, monitoring and enforcement ....................... 22
   4.5 Conclusions ............................................................................................................. 24

5. Energy Green Policy in Kazakhstan ............................................................................ 26
   5.1 Introduction .............................................................................................................. 26
   5.2 Other Green Initiatives in Kazakhstan .................................................................. 27
   5.3 Legislation related to renewable energy ................................................................. 28
   5.4 Legislation Relating to PPP and Project Finance .................................................. 29

6. PPP Enabling Environment for Green Projects ......................................................... 31
   6.1 Renewable Energy and PPPs ................................................................................. 31
   6.2 Renewable and PPP Projects in Kazakhstan ......................................................... 33
   6.3 Need for Green PPPs .............................................................................................. 33
6.4 Renewable energy capacity in Kazakhstan ..............................................35
6.5 Tariff ........................................................................................................36
7. Conclusion and Recommendations ..............................................................38
  7.1 Challenges ................................................................................................38
  7.2 Recommendations ..................................................................................38
Annex 1 Names and organisations .................................................................43
Annex 2 Tables ...............................................................................................46
Annex 3 Overview Articles ............................................................................46
1 Introduction

The world is facing an increasing demand for infrastructure. The rapid growth of the world’s population, the urgent need to make further progress in achieving the United Nations Millennium Development Goals, and the need to mitigate the effects of climate change, are coming together and overstretching every government’s budget many times over. Pressing areas of need range from water and sanitation, waste management, hospitals and health care, schools to roads, green energy and many more. Estimates by the OECD put the figure at 35 billion US dollars for new infrastructure and 45 billion US dollars for the mitigation of climate change affects in countries with emerging economies alone. It is not a discussion of why, the problem is how to find funding to meet these enormous needs.

The traditional approach of governments in meeting their infrastructure needs is either to use the State’s own budget or privatisation. The first is by far insufficient to meet the needs while the latter only works in very specific instances. There is though a third way in undertaking this task. Governments are focusing their attention on the role of the private sector to help – with emphasis on the word ‘help’ - but in a distinct new form, namely Public-Private Partnerships (PPPs). The role of PPPs is of critical importance.

The number of PPP projects worldwide has increased exponentially over the past decade or so, and there are over 4500 successful projects in the world today. However, unfortunately, there are only a few PPP projects that are successfully operating in developing countries and transition economies. Although CIS countries are beginning to look at PPPs as a means to addressing their infrastructure challenges, for most of these countries PPP is a totally new concept and a model where there is no living memory of, and substantial project-focused capacity-building and training will be required in order to deliver successful projects.

The vast majority of countries with economies in transition and developing countries in the UNECE region and beyond that are at the initial stages of developing national infrastructure investment strategies, including PPPs, need to improve their understanding, knowledge, capability, skills, and establish efficient processes that would allow them to properly develop and deliver their PPP strategies. The UNECE recognised this capability gap and undertakes PPP assessments in order to assist countries to develop their PPP strategies according to best international practice, so that they might successfully deliver much needed infrastructure on a large scale and co-ordinated basis, for the good of the citizen and at a cost that represents ‘value for money’.

1.1 Green PPPs

The Readiness Assessment in Kazakhstan had its focus on ‘Green PPPs’. There is no definition of Green Public Private Partnerships but to focus the Readiness Assessment a desktop research was carried out to define the boundaries of this assessment. The desktop
research gave three distinctive pillars for Green PPPs. The World Bank if focusing on mitigating climate changes, PIMAC (Korean PPP Centre is working on Green PPPs), Aruba (P3 Initiative, complete independent from the grid). At the European Union, the Green PPPs are focused on Green Cars and do have an ‘innovation’ component and driver.

**Drivers for Green PPPs**

- Climate Change: Mitigate climate change (CO2 reduction)
- Dependency Reduction: Fossil fuel dependency reduction as national policy
- Innovation: Innovation drivers to reduce CO2 emission and dependency

**Key features of Green PPPs**

- Green PPPs should combine the normal (international accepted) principles of project finance and environmental economics to lay out a simple, solid rationale for public support of low-emission projects;
- Green PPPs should be supported by locking new investments into clean technologies, while displacing low-cost polluting alternatives
- Green PPPs need a valuing and monetizing global and local environmental externalities as well as distortions created through fossil fuel subsidies needs to be given priority;
- Green PPPs can only be successful is sufficient support is provided to make low-emission projects bankable in an equitable and non-political manner;
- Green PPPs cannot do without a country’s policy environment which is to help governments play a responsible role in creating a conducive investment climate and to level the playing field for low-emission projects;
- A country’s public-private partnership framework of legally backed performance agreements and sanctions for non-compliance needs to serve as the foundation to provide a credible and effective legal, regulatory & monitoring, reporting and verification system for reducing third-party risks.

1.2 The UNECE PPP assessments in Kazakhstan

In addressing Green PPPs in Kazakhstan, the UNECE, through its Team of Specialists on PPP and the UNECE International PPP Centre of Excellence, and in cooperation with the Ministry of Economy and the PPP Centre Kazakhstan, held a series of meetings with key stakeholders involved in furthering PPP development in Kazakhstan (including lead and line ministries, financial institutions, private businesses and representatives of intergovernmental organisations).

The programme of consultative meetings in Kazakhstan took place from 4-8 of November 2013 (see Annex I), and it was specifically designed to engage all of the major stakeholders in Kazakhstan who are involved with infrastructure development focusing on Green PPPs, both in the public and private sectors, as well as major international organisations. Most of the meetings with line ministries were at the level of Deputy Ministers, while those with the
banking community and private businesses were at the level of senior executives. The consultations with the various stakeholders were informal in nature, and the knowledge acquired from these meetings together with the replies to the pre-visit questionnaire provided the basis for the PPP assessment report (Box 1 above contains the rationale for UNECE PPP assessments).

1.3 Structure of the PPP assessment

The focus of this assessment is on options to facilitate financing of infrastructure development through the use of Public-Private Partnerships (PPPs), with a special emphasis on the Green PPPs and related projects in the areas identified in consultation with the stakeholders (see section 3 below). The assessment will also identify areas where potential pilot projects through PPPs could be used as a means to bring about private sector financing for infrastructure projects in the area of Green PPPs. In doing so, the assessment will touch upon a number of areas in the enabling environment related to PPPs and will identify areas that might need further consideration in order to attract the necessary private sector investment into infrastructure projects.
2 Strategy 2030 for Kazakhstan

2.1 Introduction

Kazakhstan 2030 shall be a clean and green country with fresh air and water. Industrial waste and radiation will not penetrate into our homes and gardens. Our children and grandchildren will have a good life under healthy conditions. Economic growth cannot ensure the welfare of our citizens. One can imagine a thriving economy with people getting ill every year due to a bad attitude to their health and the polluted environment. While we form our society, it is necessary to apply increasing effort to make our people healthy during their lives and to surround them with a healthy environment.

In one of his last interviews, the President of Kazakhstan, Nursultan Nazarbayev, pointed to current global changes in the world economy caused by climate change and provided his vision of Kazakhstan's further development through a “green ecologically clean economy”. By the RoK Order, MoEP of Kazakhstan has executed this report with the assistance of international and scientific institutions. The report aims to define the necessity of revising the current economic model due to climate change and the deterioration of the status of ecosystems in Kazakhstan as well as to assess possible prospects of the development of a green economy in Kazakhstan.

2.2 Status in Kazakhstan

Over the 20 years of its independence, Kazakhstan has achieved significant economic and social success and positioned itself as an active supporter in tackling national, regional and global environmental problems. Kazakhstan supports international cooperation and participates in environmental and sustainable development processes at global, regional, and sub-regional levels. The country participated in the UN Conference on Environment and Development in Rio de Janeiro (1992) and in the acceptance of its main documents: the Rio Declaration, the Agenda for XXI century and global environment conventions.

The President of Kazakhstan’s initiatives of closing the Semipalatinsk Test Site, non-proliferation and abolition of nuclear weapons, preservation of the Aral Sea and conservation of biodiversity in the Caspian Sea are of global importance for sustainable development and overall safety.

2.3 Conception of Kazakhstan on transition to green economy

The driver for Green PPPs is based in the ambitious concept of Kazakhstan to move to a green economy. This concept was presented in September 2013. Despite the economic success of the country, many serious environmental problems have not been solved. Growing
desertification, ‘historical’ pollution, increased volumes of waste and emissions seem to be a serious threat for economic development, environment and health of the nation. Total energy consumption together with emission of greenhouse gases is rapidly increasing. If considering energy consumption per unit of GDP, Kazakhstan is among those top ten countries that use their energy inefficiently, spending 500 gr. of fuel in toe, for production of one dollar, while OECD countries spend 130 gr. of fuel in toe.

The main priorities in the state’s transition to a green economy are:

- increasing the efficiency of use of resources (water, land, biological, etc.) and their management;
- the modernization of existing and construction of new infrastructure;
- improving the well-being of the population and quality of the environment through cost-effective ways to mitigate the pressure on the environment;
- improve national security, including water security.

The concept of the Republic of Kazakhstan for the transition to a green economy will be implemented in three stages:

2013-2020: During this period the main priority of the government will be optimization of the resources’ use of and improvement of environmental performance, as well as the creation of “green” infrastructure;

2020-2030: On the basis of the established "green" infrastructure the national economy will be transformed, focusing on the careful use of water, encouragement and stimulation of the development and widespread adoption of renewable energy technologies, as well as the construction of structures on the basis of high standards of energy efficiency;

2030-2050: The transition of the national economy on the principles of the so-called "third industrial revolution", requiring the use of natural resources, subject to their renewability and sustainability.

According to this concept, the measures for the transition to a green economy will be implemented in the following areas: sustainable use of water resources, the development of sustainable agriculture and high-performance, energy saving and energy efficiency, the development of electric power industry, waste management system, reducing air pollution and the conservation and effective management of ecosystems. Implementation issues of the transition to a green economy will be governed by legislative acts of the Republic of Kazakhstan. It is estimated that the transition into the green economy will be further increased by 3% of GDP, more than 500 thousand new jobs, new industries and services to provide universally high standards of quality of life for the population will be created.
3. What are Public-Private Partnerships (PPPs)?

3.1 Introduction on PPP

In Public Private Partnerships there are three basis schools which can be identified. First the Foreign Aid PPPs sometimes referred to as PPP Pro Poor. Secondly the PPP which are focussed on (mostly Foreign) investment and the third one is Project Finance PPP. The basic element of all three is that PPPs are intended for developing Public Assets with ‘Foreign Funding’. The second and third form of PPP is sometimes mixed and the division is less shape as between the first and the latter ones.

Foreign Aid PPP

This type of PPP is mostly seen in the form of a donation from a developed country towards a developing country with the aim of addressing an important issue and in the solution involving local parties, special NGOs and SMEs. The Obama Administration defined this type of PPP as “Modern public-private partnerships (PPPs), characterized by joint planning, joint contributions, and shared risk, are viewed by many development experts as an opportunity to leverage resources, mobilize industry expertise and networks, and bring fresh ideas to development projects. Partnering with the private sector is also widely believed to increase the likelihood that programs will continue after government aid has ended. From the private sector perspective, partnering with a government agency can bring development expertise and resources, access to government officials, credibility, and scale.”

Foreign Investment PPPs

This is the type of PPP whereby the government has no (or partly insufficient) funding for a public asset. The drives for a PPP are a funding and budget challenge. Projects are mostly in the infrastructure areas (schools, hospitals, renewables, roads and rail etc.)

An example of these types of PPP is the Philippines: From the original five public-private partnership (PPP) projects targeted by 2013, the number has gone up to 15 because of the additional foreign financial aid. The Asian Development Bank (ADB) and the Australian Agency for International Development (AusAID) contributed a total of $15 million, $12 million of which will be for the Project Development and Monitoring Facility (PDMF) which funds PPP projects of the country, and $3 million for “capacity building and institutional strengthening.” “We are happy to provide additional support to the government for its positive momentum,” said Neeraj Jain, ADB country director to the Philippines. “Australia remains a strong supporter of the Philippine government’s PPP agenda with our increased funding support,” said Bill Twedell, Australian ambassador to the Philippines. The Canadian government, on the other hand, handed PDMF $3 million for capacity building and institutional
strengthening of PPP. “The support to PPP is in line with the government of Canada’s plan to broaden our engagement with the private sector as the driving force behind sustainable economic growth,” said Christopher Thornley, Canadian ambassador to the Philippines. According to Jain, the PDMF is funding a total of 25 PPP projects from total investments over $4.2 billion.

**Project Finance PPPs**

This type of PPP is mostly used in developed and experienced PPP countries. The PPP driver is less financial driven (although off balancing budget is a string drives in the economic crisis) but more a budget controlling instrument, promoting innovation and handing tasks over to the private sector. Also referred to as ‘PPPs as an alternative to ’traditional’ public procurement’. The PFI scheme in the UK and the DBFMO initiative in the Netherlands are good examples of these types of PPP. The French concessions are a good example of a hybrid form, incorporating both investment and project finance PPPs.

3.2 PPP at the UNECE

PPPs are projects in the field of infrastructure development, and are defined by the UNECE as: innovative, long term, contractual arrangements for developing infrastructure and providing public services by introducing private sector funds, expertise and motivation into areas that are normally the responsibility of government. These are both Project Finance as well as Investment PPPs.

PPPs are therefore arrangements between government (at that national, regional or municipal level) and private sector entities aimed at financing, designing, operating public sector facilities and services in a host of infrastructure sectors, including transport, water and waste water, education, energy, health and education. In other words, PPPs are a mechanism for attracting private investment into infrastructure development defined both as economic infrastructure, such as transportation and energy, and social infrastructure, such as schools and hospitals. Such partnerships are characterized by the sharing of investment, risk, responsibility and reward between the partners. The underlying logic for establishing partnerships is that both the public and the private sector have unique characteristics that provide them with advantages in specific aspects of service or project delivery. The most successful partnership arrangements draw on the strengths of both the public and private sector to establish complementary relationships.

3.3 The advantages of PPP

The dual characteristics of a PPP are project finance (where private lending is provided on the basis of the revenue stream of an asset), and a long-term contract between the private and public sector (typically, 25 to 30 years), for the design, financing, construction, operation,
maintenance and transfer (or a combination thereof) of public capital assets by the private sector. Some of the key advantages of PPPs are elicited here,

✓ On time and on budget delivery of projects;
✓ Innovation and diversity in the provision of public services;
✓ Value for money for the taxpayer through optimal risk transfer and risk management;
✓ Efficiencies from integrating design and construction of public infrastructure with financing, operation and maintenance;
✓ Competition and greater construction capacity (including the participation of overseas firms, especially in joint ventures and partnering arrangements);
✓ Accountability for the provision and delivery of quality public services through a performance incentive management/regulatory regime;
✓ Development of local SMEs
✓ Effective utilisation of state assets to the benefit of all users of public services.

PPP is one of a number of ways of delivering public infrastructure and related services. It is not a substitute for strong and effective governance and decision making by government. In all cases, government remains responsible and accountable for delivering services and projects in a manner that protects and furthers the public interest.

3.4 Traditional Procurement versus PPP

Typically, a government agency will specify the outputs or services required. The job of producing detailed designs, finding the finance, organizing the construction and on-going management of the facility is let to a private consortium by way of a competitive tender. The private consortium is typically organized by a lead contractor who brings together financiers, engineering firms, construction companies and facilities management companies, to provide individual services. According to international best practice, the PPP model offers a number of advantages over ‘traditional’ public procurement, especially as it increases the certainty of outcomes (that is, ‘on time’ and ‘on budget’ delivery). PPP is therefore a professional way and an alternative to ‘traditional’ public procurement. There are different ways in which the private sector can invest in public infrastructure projects. On one end of the spectrum we find the ‘traditional’ public procurement, while on the other end, we find outright privatisation. PPPs are essentially what comes in-between, and are different from both ‘traditional’ public procurement and privatisation of public assets. In the case of privatisation, for example, accountability for service delivery and ownership is transferred on to the private sector, while accountability in the PPP model remains vested in the public sector.

The key differences are:

✓ specifications in PPPs are measured in terms of ‘outputs’ rather than ‘inputs’ as in ‘traditional’ public procurement;
✓ the private sector is responsible to finance, build and operate the asset;
✓ the public sector ‘purchases’ the services through regular payments (service payments) or income generated (user fees) over the life of the contract;
✓ in a PPP, any costs overruns remain at the private sector’s risk;
✓ risks associated with costs of design, construction, operation and maintenance, and demand for the use and service provided by the asset, are transferred from the public to the private sector in a PPP project;
✓ in a PPP, construction costs are funded by the private sector, thus relieving the pressure on government funding for infrastructure projects requiring significant capital investment; and
✓ The whole life-cycle approach in the PPP model vis-à-vis traditional procurement ensures that the private sector selects the most efficient and sustainable solution for the long term rather than the cheapest solution in the short term.

The PPP model has grown tremendously in popularity in the past years. This growing interest is mainly due to the lack of resources of governments to meet their growing infrastructure requirements and the desire of their citizens for better public services. Besides its attractiveness as a model that has the potential to bridge the so-called ‘infrastructure gap’, there is increasing evidence that the PPP model relative to ‘traditional’ public procurement tends to deliver projects to budget and on time, and these are core characteristics of the PPP model.
4. PPP development in Kazakhstan

4.1 Introduction

The Republic of Kazakhstan declared independence on December 16, 1991. Since it is independence, Kazakhstan has been seeking different ways to promote its social and economic development. Kazakhstan has large reserves of natural resources, which are supplemented by its industry and its transportation capacity. However, the country’s relatively sparse population and its remote location present unique challenges that make traditional financing mechanisms insufficient. The Kazakhstani government therefore has been looking for creative ways to invest in economic and social development. Public-private partnerships were considered as a special type of cooperation to share risks, mainly financial risk. As a result, the Kazakhstan Public-Private Partnership Centre (PPP Centre) was established in 2008 under the Ministry of Economic Development and Trade, with the purpose of creating a national framework to support PPPs in Kazakhstan.

4.1.1 PPP or Concession in Kazakhstan

In Kazakhstan, the interpretation for PPP is narrowed to simply mean concession. The only model that has been implemented in Kazakhstan is the Build-Transfer-Maintain (BTM). Traditionally a concession is “a public authority assigning to a private company the right to exploit a monopoly service by charging users, usually through making investments at its own risk” (Hall, et. al). This means, a private company is responsible for the design, construction, operation, and maintenance of capital assets. According to Marlowe, et. Al (2009), the traditional concession is an agreement that

“The public partner grants the private partner full responsibility for all aspects of the design, construction, maintenance, and operations of the facility in exchange for some or all of the revenues generated by it. The public partner’s role is limited to regulating the performance, price, and quantity of the service provided. The facility remains government property, but all maintenance and capital infrastructure investments are the sole responsibility of the private partner.”

This definition implies that in a concession, an asset is constructed or renovated by a private party with the use of private funding. However, the understanding of a concession is somewhat different in Kazakhstan. The existing legislation in Kazakhstan, passed in 2010, allows the government to provide additional forms of support to a concessionaire. The government can (and often does) provide financial support to a project. The legislation limits this support to the total value of the completed project, although the legislation does not explain how to define the total value of a project.
Not only is the definition of concessions different in Kazakhstan, it is also very broad. Kazakhstan’s PPP centre has considered concession projects (and also PPPs) in which a government agency or ministry partnered with a majority state-owned company. Typically this would not be considered a PPP in the developed western countries because it is simply a partnership of government entities; however, in Kazakhstan legally this case was treated as a PPP. In several other concession contracts the state has had minority ownership of the private partner. One way the state has occasionally contributed to financing was through equity ownership of the special purpose vehicle (SPV) (USAID 8). However, in recent years private companies have operated under a concession contracts with the government ministry. In general Kazakhstan has a broad understanding of PPPs and uses the term public-private partnership freely.

The majority of current concessions in Kazakhstan are in the transportation sector (road, railroad and airport), the energy sector, and in social infrastructure. Three concessions relating to railroad construction are meant to attract a private company to manage, maintain, and operate a new railway for 25-30 years (PPP Centre). Although a number of PPPs have been implemented none of have been completed. As a result, it is still too early to judge the success of these PPPs; however Kazakhstan’s legal and institutional framework is improving (Mourviev et al. 412).

4.1.2 PPP and the Public Sector Capacity

One of the key enablers for a strong PPP sector in any country is having strong capable public institutions with responsibility for managing/ facilitating PPP processes and enforcing PPP agreements that minimise confusion and promote efficiency. Many countries have pursued the approach of establishing a PPP Unit (or PPP resource) to help support PPP processes, institutional discipline and co-ordination. There are many different approaches that can be taken to setting up the PPP Unit and the PPP Unit can have many different roles:

- PPP Unit can be seen as a “Gatekeeper” where the PPP Unit is set up to check on Contracting Authorities entering into contractual arrangements with considerable financial obligations.
- The PPP Unit can also provide advisory support services to the line ministries, often across a wide range of subject matters
- Corporate Developer approaches in which the PPP unit operates as a corporate, stand-alone vehicle, charging user fees.

4.1.3 PPP Public Sector Organizations

There is no single central government or quasi government agency to regulate the project finance industry or Public Private Partnerships (PPPs) in Kazakhstan. The Government of Kazakhstan approves the list of concession projects recommended for implementation in a mid-term perspective and approves the rules of tender for selection of the concessionaire.
The Ministry of Economy Development and Trade engages a specialised organisation (i.e., PPP Centre) for concessions. The PPP Centre is also responsible for analysis and review of concession proposals, economic appraisal, feasibility studies, and analysis/review of concession projects submitted by bidders during tender. The PPP Centre creates a list of concession projects taking into consideration results of economic feasibility studies and submits it to the Government of Kazakhstan and approves bid documents and concession agreements and any amendments to them.

The Ministry of Finance approves bid documents and draft concession agreement and any amendments thereto, if the object of the concession is state property that belongs to the Republic of Kazakhstan directly (i.e., not municipal state property). In addition the Ministry of Finance registers the concession obligations; executes state guarantee agreements and state surety agreements related to concession agreements on behalf of the State; monitors implementation of the concession agreements related to objects of concession that belong directly to the Republic of Kazakhstan as state property; and accepts property established (constructed) under concession agreements into state ownership for the Republic of Kazakhstan.

Sector Ministries prepare concession proposal related to the Republican state property taking into account proposals made by individuals and legal entities as a matter of private initiative. The sector Ministries also act as organisers of a tender with regard to objects of concession related to the Republican state property; they sign the concession agreement related to objects of concession that is Republican state property; they arrange for transfer of property established (constructed) under concession agreements into state ownership; and they monitor implementation of the concession agreements related to objects of concession that belong directly to the Republic of Kazakhstan state property.

Local Governments (i.e., Akimats) of Regions or Astana or Important Cities (among other authorities) prepare proposals for inclusion of objects of municipal property of a corresponding region or city into the list of concession objects, taking into account proposals made by individuals and legal entities as a matter of private initiative. In addition they act as organiser of a tender with regards to objects of concession related to the municipal state property as stipulated in the list of concession projects; they sign the concession agreement related to objects of concession that is municipal state property; and they monitor implementation of the concession agreements related to objects of concession that is municipal state property.

4.2 The Centre of PPP (Kazakhstan)

Beside the government agencies mentioned above that are playing an active role in concession projects in Kazakhstan, in August 2008 Kazakhstan established its specialised PPP unit called Kazakhstan Public-Private Partnership Centre (the PPP Centre) to facilitate and promote PPP projects. The Kazakhstan Government set up a joint-stock company “Kazakhstani Centre of Public Private Partnership” (the Centre of PPP) was created in
accordance with the resolution of the Government of the Republic of Kazakhstan dated July 17, 2008 No. 693 “On creation of specialized organization on the issues of concession”. The sole shareholder of the JSC “Kazakhstani Centre of Public Private Partnership” is the Government of the Republic of Kazakhstan represented by the Ministry of Economic Development and Trade. The long term goal of the Centre of PPP in Kazakhstan is the creation of a sustainable structure of public-private partnership in Kazakhstan in accordance with the best international practice.

4.2.1 The work of the Kazakhstan PPP Centre

As part of the development of a PPP methodology for Kazakhstan the PPP Centre:

• Works to ensure the development and improvement of the framework methodology for evaluating and examining state based investment projects.

• Assesses the implementation of PPP Projects.

• Contributes to enhancing the quality of their training and development of the institutional system of PPP as a whole.

To date the PPP Centre has carried out the work on improving the framework requirements for developing and reviewing feasibility studies including the total budget investment cost, the concession project, and the overall financial feasibility study of the project. In order to achieve its objectives and goals the key remits of the PPP Centre are as follows:

• Ensuring the continuous legislative and regulatory framework development of PPP for the Republic of Kazakhstan;

• Performing research on the key questions surrounding Public Private Partnerships;

• To interaction with the central and local executive bodies involved in the PPP decision making process;

• To interaction with the local and international business community to promote their involvement and investment into PPPs;

• To advance PPP as a discipline in the higher education system in Kazakhstan; and

• To accumulate and transfer knowledge to all of the parties involved in the PPP sector.

Since its inception the Kazakhstan PPP Centre has developed new methodologies in the PPP sector such as:

• The methodology for structuring and financing cost of investment projects into a single document (The Investment Plan). This development allows the PPP Centre and Government to prioritise and extend their planning horizon for their list of projects for 5 years using the methodology and understanding the sources of financing.
• The development of the cost benefits analysis methodology to determine the overall economic impact of the proposed PPP project.

• The development of the framework for developing the public sector comparator (PSC), to assist in the overall value for money assessment of traditional procurement of the project versus procurement of the project through a Public Private Partnership.

• Implementation of the comparator, which is a comparison tool of financial indicators as well as being a mechanism for determining and understanding the steps of strategic opportunities for the project. This comparator is the basis for the comparing multiple procurement options including the PPP. The key point of this comparator tool is to assist in the evaluation and screening of projects for economic and social indicators as a result of using the PPP model.

### 4.2.2 Knowledge Transfer and PPP Training

The PPP Centre pursues a consistent policy of increasing awareness and understanding of the necessity introducing PPP in Kazakhstan, institutional and human capacity for PPP distribution of accumulated knowledge and experience in PPPs, and budget investment. In 2011, the Centre developed a guidance model for the preparation of PPP projects in the regions of Kazakhstan and seminars for employees of local agencies and representatives of business communities in Karaganda, East Kazakhstan and Mangistau areas. Also in 2011, the PPP Centre held 13 consultative seminars explaining the requirements for the development of financial and economic justifications for the administrators of budgetary programs.

One of the key focuses of the PPP Centre is the sustainable development of the Centre as an innovative body assisting the social and economic development through the development and use of knowledge transfer best practices. The key tasks are:

• creation of the knowledge transfer system;

• introduction of effective mechanisms of knowledge transfer;

• formation of the team of qualified knowledge transfer specialists;

• promotion of the PPP framework and methodology as an innovative method of interaction between the public sector (the state) and private sector business.

The Centre of PPP is seeking to establish itself as the competent body in PPP in Kazakhstan providing high quality of research works, educational services, and consultation. The Centre of PPP is developing a professional team of specialists in the sphere of knowledge transfer. Its role is to increase of partners’ number on implementation of knowledge transfer.
4.3 PPP Enabling Environment

The enabling environment refers to the context within which PPPs are to take place in terms of the level of political support, the policy framework, legislation and regulations, institutional capacities and competencies, and PPP processes.

The key elements of an enabling PPP environment can be grouped into three key broad elements:

- Legal and regulatory framework comprising a framework of enforceable laws and regulations which improves predictability for all parties as regards likely outcomes, thus improving confidence on all sides.

- Strong capable public institutions with responsibility for managing/ facilitating PPP processes and enforcing PPP agreements that minimise confusion and promote efficiency.

- Efficient, effective and coordinated PPP processes, built around the project cycle, that minimise transaction costs.

4.3.1 Legal framework

The core PPP enabling legislation can comprise a single PPP law, together with sector specific legislation, or sometimes a series of other laws and regulations which, taken together, can provide the necessary authorities to enter into PPP contracts.

Taken together, however, the legal framework needs to specify:

- private sector investment rights;

- clear and transparent procurement processes (including approaches to deal with unsolicited proposals);

- contractual arbitration processes; and

- remedial actions for bankruptcy/ payment defaults, amongst others.

There also needs to be a clear delineation of the capacity for different institutions to enforce contracts. In addition to many of the high level legal issues associated with PPPs which need addressing, there are also many secondary laws and regulations which need to be in place if transactions are to be undertaken in a timely manner. The legal framework was not robust enough to attract foreign investment as there were many limitations, the new law of the Republic of Kazakhstan dated 4 July 2013 No. 131-V 3ПК 'On introducing amendments to certain legislative acts of the Republic of Kazakhstan in relation to introduction of new forms of Public Private Partnership and extension of spheres of its application. The new law came into force on 22 July 2013 (apart from certain provisions). The purpose of the amendment to the law was to encourage private sector investment in PPPs, and expand the scope of PPPs in Kazakhstan, by:
• Allowing for more forms of PPP such as BOT, BOO, DBFO…etc. (prior to the law, only BTO transactions were allowed).

• Allow for availability payments and state subsidies to be made by the government to projects with other than ‘social significance’.

• Providing more flexibility to private sector investors.

• Approximate the Kazakh legal framework to international best practice.

• Allows State contributions to a broader variety of projects.

• Allows for long-term off-take agreements to improve bankability of projects.

### 4.3.2 Regulatory framework

The economic regulatory framework needs to be developed alongside the legal PPP framework in order to reduce regulatory risks and promote private sector confidence. There is often a tension, however, between what investors prefer and what is often seen as being regulatory best practice. For many years and in many countries, the policy aim has been to create independent regulatory bodies – that is, autonomy from government and with considerable discretionary powers.

In the absence of renegotiation that is less able to deal with major changes to the operating context, “regulation by contract” would seem to offer investors and lenders greater confidence than full discretionary regulation, particularly where a regulatory institution has no track record of impartial regulation.

The key institutional capabilities that are required to undertake PPPs successfully might be grouped into the following three broad, but separate, groups of competencies:

• Policy development, dissemination, monitoring and enforcement

• Individual project sponsorship, design, preparation, execution and monitoring

• Financial management of funded and contingent obligations.

The Resolution of the Government of the Republic of Kazakhstan dated June 29, 2011 № 731 approved the program for the development of public-private partnership in the Republic of Kazakhstan for 2011 - 2015. Its goal is to create a legal and institutional framework for implementation of investment projects using the public-private partnership model in the Republic of Kazakhstan. The overall objectives are:

• To improve the PPP legislative framework.

• To ensure the development of measures for effective planning and management of the processes of preparation and implementation of PPP projects.
• To establish a framework and set of criteria for evaluating the effectiveness projects through the provision of quality valued added services to the public.

• To ensure training and development of professionals within the emerging PPP sector.

The development of the PPP Centre is key in the development of the regulatory framework. Since its inception in 2009 the PPP Centre in Kazakhstan has actively promoted the use of PPP’s for the development of infrastructure across a range of sectors including (energy, transportation and social infrastructure). The PPP Centre, in general, plays the role of an external independent advisor of the Government of Kazakhstan. It ensures the balance of interests of the state, business and end-users. Moreover, after the concession agreement is signed, the PPP Centre continues to keep track of the project and monitors the course of its realisation and the dynamics of the inherent risks.

The Kazakhstan PPP Centre also plays an important part in developing methodologies for project preparation and appraisal, preparing recommendations for institutional development, and capacity building of state and other bodies in the sphere of PPP.

In addition to the PPP Centre for Kazakhstan there are satellite PPP Centres in some of the regions on Kazakhstan. Karaganda, Oskemen and Zhambyl have established their own local PPP centres responsible for development of PPPs in their respective regions.

4.4 Policy development, dissemination, monitoring and enforcement

A number of institutions need to feed in to the development of a PPP policy. Whilst this may be typically led by the Ministry of Finance and/ or Ministry of Planning and Development (or equivalent); policy ownership should be broad based, with widespread acceptance. In practice, however, this may be difficult to achieve, not least because it involves giving up an element of control which many line ministries are typically used to having. Without powerful sponsorship, it is unlikely that a PPP programme will succeed. Related to this, but a typically overlooked starting point for PPP policy is the type of projects which the government wishes to pursue and the types of contractual arrangements it may seek to enter into and any funding or other implications that follow this. As set out above there is no single central government or quasi government agency to regulate the project finance industry or Public Private Partnerships (PPPs) in Kazakhstan. The Government of Kazakhstan, the Ministry of Economy Development and Trade, the Ministry of Finance, Line/Sector Ministries and Local Governments all have a role to play in the development of PPP in Kazakhstan.

Based upon the research each of the stakeholders in the PPP sector in Kazakhstan have defined roles:

• The Government of Kazakhstan approves the list of concession projects recommended for implementation in a mid-term perspective and approves the rules of tender for selection of the concessionaire.
• The Ministry of Economy Development and Trade engages a specialised organisation (i.e., PPP Centre) for concessions. The PPP Centre is also responsible for analysis and review of concession proposals, economic appraisal, feasibility studies, and analysis/review of concession projects submitted by bidders during tender.

• The Ministry of Finance approves bid documents and draft concession agreement and any amendments thereto, if the object of the concession is state property that belongs to the Republic of Kazakhstan directly (i.e., not municipal state property).

• Sector Ministries prepare concession proposal related to the Republican state property taking into account proposals made by individuals and legal entities as a matter of private initiative. The sector Ministries also act as organisers of a tender with regard to objects of concession related to the Republican state property.

• Local Governments prepare proposals for inclusion of objects of municipal property of a corresponding region or city into the list of concession objects, taking into account proposals made by individuals and legal entities as a matter of private initiative.

4.4.1 Project sponsorship, design, preparation, execution and monitoring

One of the most common constraints to infrastructure PPPs in developing countries is the inability of the government to originate and develop bankable projects. As a result, they are highly reliant on the private sector to develop projects, which are often provided on an unsolicited basis. It is not necessary for a line ministry or other contracting authority to be an expert in developing and transacting projects. However, it is important that the processes involved and the implications that flow from particular decisions are well understood. It is usual for and advisable for ministries to hire expert advisors to help them develop and execute transactions – part of this role is to help government clients understand the PPP process better.

4.4.2 Financial management

Whilst it is normal practice for the Ministry of Finance (MoF)/ Treasury to be responsible for managing a given country’s finances, it is not that unusual where there are powerful line ministries for them to agree government commitments with investors and then to expect the MoF to sign up to sometimes highly onerous terms as a fait accompli. A further problem is that although funded commitments are recognised, contingent ones are often either ignored or else totally undervalued. It is essential that the PPP framework and processes provide for the MoF to be involved at all critical stages of the project cycle. In particular, the need for any potential public financial commitments – whether funded or contingent – need to be brought to the attention of the MoF as soon as they become likely and all commitments must be approved. In Kazakhstan both the Ministry of Finance and the PPP Centre are involved in the overall fiscal management of PPP projects, with each of these organisations having distinct roles in this process.
The PPP Centre is involved at the macro level and has developed a methodology for structuring and financing cost of investment projects into a single document (The Investment Plan). This development allows the PPP Centre and Government to prioritise and extend their planning horizon for their list of projects for 5 years using the methodology and understanding the sources of financing.

The Ministry of Finance registers the concession obligations; executes state guarantee agreements and state surety agreements related to concession agreements on behalf of the State; monitors implementation of the concession agreements related to objects of concession that belong directly to the Republic of Kazakhstan as state property; and accepts property established (constructed) under concession agreements into state ownership for the Republic of Kazakhstan.

4.4.3 PPP processes

It is important that the roles and responsibilities of different institutions are clearly defined in PPP processes and that such processes are standardised to limit confusion and improve efficiency. Overlapping roles or cross cutting responsibilities can unnecessarily 'bureaucratize' processes. The starting point for PPP processes is the PPP project cycle. The project cycle requires participation from many different government bodies, individual countries need to develop systems which fit their own particular institutional architectures.

4.5 Conclusions

While currently there are twenty-one PPP projects at various stages of preparation and implementation within the Kazakhstan, the relatively new government has almost no experience completing PPPs. Most of the PPP projects are still undergoing feasibility studies. This report focuses on risks that the government and private partners assume in terms of the overall PPP model and structure in Kazakhstan. The report of ‘REECAS NW Conference 2013’ by Ryan Dalrymple et al presents the following research and analysis, which are generally acknowledged by most PPP experts in Kazakhstan. The interviews added some additional risks as well. Combined, these are the current challenges facing PPP in Kazakhstan:

Public Sector Risk

✓ Financial Risks: While private partners traditionally fund concession projects, in Kazakhstan the government may provide financial support up to the amount of the total value of the project. Also the government has assumed the responsibility of funding feasibility studies for all proposed PPP projects. PPP projects often do not begin without extensive government financial support.

✓ Monitoring Risks: Considering Kazakhstan’s relatively little experience with PPPs, it will need to provide training or introduce foreign experts who have a decent understanding of PPP projects to be able to monitor and evaluate the outcomes.
✓ Knowledge and experience: The PPP Centre provides tools and advises on PPP projects, but the current Centre is understaffed. Secondly, the rapid change of staff and PPP experts is preventing the centre to become a major and consistent partner in PPP.

✓ Institutional Risks: The complex bureaucratic approval process and lack of competitive bidding system present risks that the project will not be implemented efficiently. At local level there is no tender procedure at all and legal system appoint the local governor (Akimat) as grantor of the project, but is never but not accountable in the total process

✓ Legislation risks: Since the independence of Kazakhstan already three PPP laws have been developed, none of those three resulting in an operational and successful PPP project. Partly because the PPP law does not fit with international standards, partly because the law does not address essential subjects within PPP.

The private partners are facing:

✓ Demand Risks: Kazakhstan is a very large country with a relatively small population. Because of relative small population this report assumes that much of the demand for major infrastructure projects will come from freight rather than passenger traffic. International demand for Kazakhstan’s resources will have large impact on the demand for rail and highways.

✓ Transparency risks: With three PPP laws in just 8 years, with no operational PPP project and the highly corrupted environment, sustained by the PPP law, it is both a financial (investment) as well as an organisational risk (corporate rules and compliance)to invest in PPP.
5. Energy Green Policy in Kazakhstan

5.1 Introduction

The Kazakhstan 2050 strategy sets the goal that 50 per cent of Kazakhstan’s energy consumption will come from renewable and alternative energy sources. During his annual state of the nation address in Astana on December 15, 2012, Kazakh President Nazarbayev introduced the new Kazakhstan 2050 Strategy—a comprehensive state plan aimed at bringing Kazakhstan into the ranks of the world’s 30 most developed countries by the middle of the twenty-first century.

The three key aims of the 2050 strategy and policy are:

1. To define new markets where Kazakhstan can form productive partnerships and create new sources of economic growth;
2. To create a favourable investment climate; and
3. To develop an effective private sector and public private partnerships.

A key and fundamental part to the Countries 2050 strategy is centred on developing the energy sector and in particular the renewable energy sector as one of the county’s sources of new economic growth. The strategy states that:

“Maintaining Kazakhstan’s status as a big player in the hydrocarbon commodity market is key, however, the country must develop the production of alternative energy sources, actively seeking to introduce technologies using solar and wind power. By 2050 alternative and renewable energy sources must account for at least a half of the country’s total energy consumption.”

Part of the Ministry of Regional Development’s work will be aimed at developing non-extractive industries, specifically in hydrocarbon-rich regions. At least some of the non-extractive industries Kazakhstan will encourage are likely to be rooted in alternative energy. Reflecting the declaration in the Kazakhstan 2050 Strategy that “the era of hydrocarbon economy is coming to its end,” the government hopes to invest heavily in wind, solar, and hydropower production, adding one gigawatt of renewable energy to the national grid in the next seven years.

In connection with this goal of investing heavily into the renewable energy sector the President’s decree significantly broadened the authority of the Ministry of Environmental Protection. The ministry will now be responsible for developing Kazakhstan’s renewable energy policy and for overseeing the implementation of the country’s “green economy” policies. In addition, President Nazarbayev announced that the Ministry of Environmental Protection would become one of the central governmental organs involved in coordinating and attracting foreign participants to Expo-2017—the 2017 world’s fair—which will be held...
in Astana. The Kazakh capital was chosen to host the exposition in late 2012 based on its delegation’s proposal to focus the event on “future energy.” President Nazarbayev expressed the importance of green development and Expo-2017 itself, telling his government that the exhibition must become “a catalyst for motion into the third industrial revolution.”

The official theme for Expo 2017 to be held in Astana is “ENERGY OF THE FUTURE”. It is thought that Expo 2017 will showcase innovative and practical solutions for the world’s energy and environmental issues.

Kazakhstan will be spending 1% of its annual output on increasing power generation from green resources until 2050. The overall cost of the program from the period it starts until 2050 will be $3.2 billion, approximately 1% of the country’s GDP. Currently up to 80% of the country’s power is generated by coal fired power stations. By 2030 the aim is for the power to be produced through the following sources:

<table>
<thead>
<tr>
<th>Source of Energy</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind and Solar</td>
<td>11%</td>
</tr>
<tr>
<td>Nuclear Power</td>
<td>8%</td>
</tr>
<tr>
<td>Hydro-Electric</td>
<td>10%</td>
</tr>
<tr>
<td>Gas</td>
<td>21%</td>
</tr>
<tr>
<td>Coal</td>
<td>49%</td>
</tr>
</tbody>
</table>

Table 1 - 2030 Projected Sources of Energy

As a result of Kazakhstan’s 2050 Strategy and other green policies it is clear that Kazakhstan has a clear plan and set of policies for the future and a focus on greener power production, with wind solar and hydro-electric forming the corner stone of the renewable energy sources.

5.2 Other Green Initiatives in Kazakhstan

In addition to the Kazakhstan 2050 strategy which sets the goal of 50% of their energy consumption coming from renewable and alternative sources, Kazakhstan has implemented our green initiatives which sit beside and compliment the government’s overall position on a greener economy.

Green Bridge Initiative: Kazakhstan’s Green Bridge Initiative addresses sustainable resources development in the areas of green growth, low carbon development, climate change, biodiversity, environmental safety. This Initiative was adopted by the Rio+20 UN Conference on Sustainable Development in 2010.

Reduction of Greenhouse Gas Emissions: Kazakhstan will decrease greenhouse gas emissions by 15% by 2020 and 25% by 2050. Kazakhstan is the first Central Asian country to launch a cap and trade system to reduce greenhouse gas emissions in the coal, oil and gas extraction sectors. Kazakhstan is a participant of the United Nations framework convention
on climate change (UNFCCC) (since 1995), and in 2009, ratified the Kyoto Protocol to UNFCCC, thus committing itself to reduce greenhouse gases. Integrating RES in Kazakhstan’s energy mix is regarded as one of the most efficient methods of mitigating the harmful impact of energy sector activities on the environment and in diversifying generation capacities.

**Water Conservation:** The President declared a Water Resource Management Plan to secure the supply of drinking water by 2020 and irrigation water by 2040. The plan calls for water saving technologies, reduction in losses during irrigation and transportation and improving water conservation in homes.

**Green Economy:** The Kazakhstan government believes that the transition to a green economy is good macro-economic policy and as a result of this policy they believe that the Green Economy will create 500,000 jobs and will account for one percent of the annual GDP.

**Renewable and Alternative Energy:** There are already more than 25 renewable energy projects in Kazakhstan generating solar, wind hydroelectric power. More projects are due to start most notably the Yereimentau wind park which will provide power to the Expo 2017.

### 5.3 Legislation related to renewable energy

The development of renewable energy is declared as one of the priority directions of establishing the future economy sectors as set forth in the State Program for Accelerated Industrial and Innovative Development of the Republic of Kazakhstan (RK) for 2010–2014 and the Kazakhstan 2050 Strategy. In addition, the use of RES is provided for by the program of the electricity sector development in Kazakhstan for 2010–2014 and is regulated by the Law of the RK on Support to the Use of Renewable Energy Sources, adopted in 2009. All relations established in the process of generation, transmission and consumption of electricity and/or heat, which are not regulated by this law, are additionally regulated by:

- The Law, 9 July 2004 No. 588-II On Electricity;
- The Law, 25 December 1997 No. 210-I On Energy Saving and;

The Law of RK on Support to Use of RES provides for economic mechanisms of support to the RES development and sets forth the basic principles of state regulation of RES use. Article 9 of the Law on Support to Use of RES states that the regional power grid companies have the responsibility for the connection of the RES capacities to grids and the purchase of all electricity generated from RES by respective generation companies. In addition, such generation companies are exempt from payment for power transmission services.

The law also provides for a number of incentives for these generation companies, including feed-in tariffs and connection of new facilities to the existing power grids. Generation of electricity from RES in Kazakhstan requires a license. The distribution of electricity and heat,
and the operation of power plants, for generation and for transmission, as issued by the Agency of the RK for regulation of Natural Monopolies must also be authorized.

In accordance with the Land Code, the specific skills of local executive bodies of a region (the cities of republican significance, the capital) include the allocation of land plots for the purposes of construction facilities that use RES. Once land allocation has been commenced, land plots are attributed to energy sector land and are regulated respectively (Art. 119 of the Land Code). It should be noted that an investor shall be included in the plan of RES facilities location when land plots are granted.

In general, the requirements for construction of generation plants using RES coincide with the requirements for construction of any industrial facility in Kazakhstan. In implementing a project, it is necessary to submit a feasibility study, as well as a project for the government’s approval and a review for the approval of the State’s architectural and construction supervision bodies. Documents approved are subject to state environmental expert review.

Kazakhstan Senate has approved the draft law on amendments to legislative acts to support use of renewable energy sources in its first reading. According to the statement of the Senate Commission on Nature Management and Development of Rural Territories, adoption of the draft law serves to assure investors that the invested funds will be returned and to clearly set the rates on the energy generated by renewable energy sources and to facilitate accumulation of experience in implementation of renewable energy project and their integration into the Kazakhstan’s existing energy network.

The Minister of Environmental Protection gave more details on the draft law during its discussion in the Majilis (the lower chamber of the Kazakhstan Parliament). In particular, according to Nurlan Kapparov, the draft law introduces targeted support. “To boost use of renewable energy sources, the state is reimbursing 50% of the expenses of individuals not connected to electric networks for procurement of RES units of or below 5kW.

5.4 Legislation Relating to PPP and Project Finance

The current legal framework governing PPPs and project finance consists of the following key legal acts:

- the Constitution of the Republic of Kazakhstan;
- the Civil Code;
- the Law of Kazakhstan 'On Concessions';
- the Law of Kazakhstan 'On Investments';
- the Law of Kazakhstan 'On State Property';
- the Tax Code of Kazakhstan;
- the Land Code of Kazakhstan;
- the Budget Code of Kazakhstan;
- the Law of Kazakhstan 'On Securities Market';
- the Law of Kazakhstan 'On Project Finance and Securitisation';
- the Law of Kazakhstan 'On Special Economic Zones';
- the Law of Kazakhstan 'On Natural Monopolies'; and
• the Law of Kazakhstan 'On State Support of Industrial Innovative Activity'.
In addition, there are various special bylaws and regulations with regard to concessions, including, among others:

• Edict No.294 (of 5 March 2007 of the President of the Republic of Kazakhstan) 'Concerning the List of Facilities Not Subject to Concession';

• Decree No.1343 (of 10 December 2010 of the Government of the Republic of Kazakhstan) 'Concerning the Approval of the Rules for Submission, Examination and Selection of Concession Projects, Holding Tender for Concessionaire Selection, Monitoring and Appraisal of Implementation of Concession Projects that are Co-Financed from Budget, and Selection of Concession Projects for Granting and Increase of Limits of State Surety';


• Decree No.1326 (of 29 December 2006 of the Government of the Republic of Kazakhstan) 'Concerning the Approval of the Standard Concession Agreements in Various Sectors of the Economy';

• Decree No.783 (of 18 August 2006 of the Government of the Republic of Kazakhstan) 'Concerning the Approval of the Criteria for the Concession Projects';

• Decree No.1254 (of 23 December 2006 of the Government of the Republic of Kazakhstan), 'Concerning the Approval of the Rules of Maintaining the Register of Signed Concession Agreements and Provided Government Guarantees and Sureties';

• Decree No.955 (of 16 October 2008 of the Government of the Republic of Kazakhstan) 'Concerning the Approval of the Rules for the Formation of the List of Concession Projects Which Require Co-Financing';

• Decree No.864 of 18 September 2008 of the Government of the Republic of Kazakhstan) 'Concerning the Approval of the Rules for the Formation of Tariffs (Prices, Rates of Levies) or their Maximum Levels for Regulated Services (Goods, Work) of Natural Monopolies Carrying Out Their Activity in Accordance with Concession Agreements';

• Order No.95 (of 28 July 2010 of the Minister of Economic Development and Trade of the Republic of Kazakhstan) 'Concerning the Approval of the Requirements to Expert Examination of Concession Proposals, Tender Documentation, and Concession Applications Submitted by Tender Participants in Conducting Tender on Concessionaire Selection, and Draft Concession Agreements'.

6. PPP Enabling Environment for Green Projects

6.1 Renewable Energy and PPPs

Kazakhstan has the potential of wind, solar, hydrothermal power and the hydro power of small rivers. The great renewable energy source (RES) potential of Kazakhstan exceeds 1 trillion kWh per year (about 10 times the energy consumption in the country). However, the current share of RES in the overall energy mix in Kazakhstan is below 0.5%.

Wind and solar power resources in the country are stable and acceptable for the economic, viable generation of electricity. The main goal of the Kazakhstan Government through its 2050 Strategy is to increase the share of these sources in the energy mix of the country (as set out in Table 1 above).

Kazakhstan plans to promote RES development in the following key directions:

- Creation of favourable conditions for construction and operation of Renewable Energy Sources capacities;
- Promotion of electricity and heat generation from Renewable Energy Sources and creation of favourable conditions for efficient integration of Renewable Energy Sources in the Unified Power System; and
- Allocation for investment incentives

The table sets out the current unconventional and renewable energy sources in Kazakhstan and sets out the total potential capacity in each of these renewable sources:

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Hydro Large HPP</th>
<th>Hydro Small HPP</th>
<th>Solar</th>
<th>Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available in Operation</td>
<td>7.5 billion kWh</td>
<td>0.4 billion kWh</td>
<td>n/a</td>
<td>500 kW/1.65 million kWh</td>
</tr>
<tr>
<td>Economically Feasible</td>
<td>22.5 billion kWh</td>
<td>7.5 billion kWh</td>
<td>n/a</td>
<td>250 MW/820 million kWh</td>
</tr>
<tr>
<td>Technically Feasible</td>
<td>41 billion kWh</td>
<td>21 billion kWh</td>
<td>n/a</td>
<td>1,000–2,000MW / 3.3–6.6 billion kWh</td>
</tr>
<tr>
<td>Potential</td>
<td>105 billion kWh</td>
<td>65 billion kWh</td>
<td>3.9–5.4 billion kWh</td>
<td>1,820 billion kWh</td>
</tr>
</tbody>
</table>

Table 2: Unconventional and Renewable Energy Sources in Kazakhstan
Source: Ministry of Oil and Gas of RK the Program of Electricity Sector Development for 2010–2014 includes wind power plants that are in energy balance and that can contribute to about 1% of the total energy consumption by 2015.

Kazakhstan’s Government is reviewing the National Program of Wind Power Sector Development until 2015 with extension until 2024 (prepared under the joint project of the Kazakhstan Government and the UN Development Kazakhstan Program – Wind Power Market Development Initiative).

The goal of the program is to use the wind power potential of Kazakhstan for generation of 900 million kWh of electricity per year by 2015 and 5 billion kWh – by 2024, within the framework of the Concept of Kazakhstan’s transfer to sustainable development for 2007–2024, and the strategy of industrial and innovative development of Kazakhstan for 2003–2015, where the aim is the preservation of natural resources and the environment.

Under the implementation of the State Program for accelerated industrial and innovative development the National Atomic Company Kazatomprom JSC established a number of independent subsidiaries responsible for implementing projects in the RES sector. These enterprises include: Ecoenergomash LLP (wind power), Mashzavod LLP and Legmash LLP (heat pumps), KAZ PV Project (solar power), which has four independent but interrelated legal entities all involved in different parts of the manufacturing chain in Solar PV and ranges from (mining of quartz to processing of quartz and silicon to the manufacturing of solar panels).

АО “Samruk-Energo” executes the order of the President and the development Strategy of Kazakhstan. The company has started developing RES. In order to realize RES Projects, the subsidiary company TOO “Samruk-Green Energy” was established under registration number 42317–1901-TOO, 25 January 2012. TOO “Samruk-Green Energy” is a dynamically developing company that conducts its activities in the area of electricity production by using renewable energy technologies. The company has the following strategic objectives and activities:

- Designing and construction of projects to use for RES, technical devices and associated facilities to produce electricity and heat energy;
- Producing and selling of electricity produced from RES;
- Providing maintenance of transmission systems to transport electricity from place of production to distribution networks;
- Organizing and providing consulting services, participating in research and design activities in the area of RES.
6.2 Renewable and PPP Projects in Kazakhstan

There are already more than 25 renewable energy projects in Kazakhstan generating solar, wind hydroelectric power. More projects are due to start most notably the Yereimentau wind park which will provide power to the Expo 2017.

There are a number of projects planned in the renewable energy sector in Kazakhstan over the coming years to develop over 1,040 megawatts of renewable energy capacity by 2020 (hydro, wind and solar) including:

• 13 wind power plants with total capacity of 793 megawatts
• 14 hydropower plants with capacity of 170 megawatts
• 4 solar power plants able to produce 77 megawatts
• 23 billion-tenge ($153 million) wind-power plant near Astana by 2017
• $196 million hydropower plant in the Almaty region by 2015

All of the above projects could lend themselves to being developed through a Public Private Partnership Structure.

6.3 Need for Green PPPs

Over the 20 years of its independence, Kazakhstan has achieved significant economic and social success and positioned itself as an active supporter in tackling national, regional and global environmental problems. Kazakhstan supports international cooperation and participates in environmental and sustainable development processes at global, regional, and sub-regional levels. According to international assessment, an increase of global temperature by 2°C in comparison with pre-industrial period will result in catastrophic irreversible changes in the world. In Kazakhstan, climate warming is faster than in the world in average. This situation presents a serious threat to country water supply and increases the desertification of its territories. Global climate change affects territory of Kazakhstan compared to worldwide trend. In Kazakhstan, coal is the basis of energy. Moreover, energy contributes to the volume of carbon dioxide (greenhouse gas) emissions, and coal – among energy products. Calculations show that the share of coal in emissions generation will increase drastically. By 2020, more than 70% of energy generating capacities will be deteriorated; new projects are mainly focused on coal. With this scenario, Kazakhstan has a risk of not fulfilling international obligations on reduction of greenhouse gas emissions.

Considering above, the adopted Strategy Kazakhstan 2050: A New Political Course of the Established State (“Strategy 2050”) for transition of the Republic of Kazakhstan to Green Economy was developed and approved by the president’s decree. The major drivers identified for this transition are as follows:
Inefficient use of resources is currently observed in every sector. According to experts, this translates into USD 4 to 8 billion lost by the economy each year and may amount to USD 14 billion by 2030.

Inadequate system of tariffs and pricing for energy resources disincentives industrial technology improvements.

Natural resources and environment are seriously deteriorating across all crucial environmental standards.

The economy of Kazakhstan depends too much on commodity export and, due to this, is highly exposed to sharp price fluctuations in the commodity markets.

Kazakhstan has inherited great territorial heterogeneity in terms of economic parameters, living standards and environmental conditions. Development of new industries and green clusters will make it possible to reduce inequality in the development of various regions and harness their potential in the renewable energy sector, agriculture, water management, waste disposal and other sectors.

The global community expects Kazakhstan to successfully implement several landmark projects: the EXPO 2017 exhibition entitled Energy of the Future and the Green Bridge Partnership Program aimed at contributing to sustainable development in Central Asia and other regions of the world.

From the political standpoint there are several factors to be taken into consideration for green energy PPP readiness evaluation. On one hand, the government of Kazakhstan clearly indicates their interest to take a leading role among other countries of Central Asia in development of ecologically friendly technologies and in PPP development. They are ready to allocate resources for that and have been trying to take every effort to attract investments in this area. Kazakhstan also actively participates in international forums for climate change evaluation and is committed to work on carbon dioxide emission reduction. On the other hand, the local Kazakh legislation does not provide adequate protection for foreign investors neither stimulates financial attractiveness of green projects.

On the base of the government program, the road map was created for green energy development until the year 2020 was developed. The special Green Economy fund has been established to financially support projects within the program. The target is to increase electric power generation from renewable sources to 3% of total before year 2020.

The responsible government body for the program development is the Ministry of Environment Protection of the Republic of Kazakhstan. By the year end 2013 the Ministry is planning to come up with the package of legal documents/laws which are supposed to provide legal and financial protection for companies investing in green projects which will include special fixed tariffs for renewable energy, certain guaranties for green products purchase by state enterprises as well as tax incentives for investors in energy saving technologies.

Ministry of Regional Development of the Republic of Kazakhstan is responsible for implementation of the project and is specifically in charge for involvement of private sector (including PPP) in green economy projects. The Ministry evaluates operation of existing carbon facilities and develops instruments (penalties, legal acts) to the enterprises whose emission exceeds limits. This Ministry is also in charge to support small private entrepreneurs.
and to integrate/direct them towards green economy. The major purpose is to integrate energy saving technologies into housing and utilities segment development during new facilities construction as well as during renovation of existing ones. A list of green investment projects will be created and supported by the ministry in all economy segments. Special training program was established for small private entrepreneurs to help a successful start-up in business and to give orientation in market situation for investment projects selection.

The green economy program development envisages quite a big emphasis on renewable energy promotion as well as dramatic coal fired power generation reduction in future. The target of the program is to reach 50% electric power generation from “green” sources by the year 2050. However this ambitious target is criticised by several economists who question economic feasibility of this approach which can result in high inflation rate caused by the fact that electricity from renewable sources is more expensive and extra costs are likely to be absorbed by the consumers via special tariffs applied. Also, development of green energy projects will require substantial investment in electrical grid expansion which is currently no considered and is out of particular project cost.

6.4 Renewable energy capacity in Kazakhstan

The electricity generation in Kazakhstan is produced by 70 power plants with total capacity of 20.2 GW. 74% of it comes from coal fired power plants, 18% from gas fired power plants and 8% from hydraulic power plants. The existing power generating facilities are outdated (41% of power generating fleet exceeds 30 years of operation). Renewable energy installed base takes less than 1% of total capacity. For the future, coal is likely to remain the major power generation source because the deposits of coal in Kazakhstan are enormous allowing power generation for the next 500 years and more.

Considering the strong Kazakhstan commitment to green energy development, the state electric power development program stipulates increase of renewable power generating capacity share to 3% of total by the year end 2020 (about 1 GWt incremental total capacity). The government will support the following renewable energy sources: wind, solar, biomass, geothermal and small hydro (less than 35 MWt capacity). All incremental renewable power projects are planned to be 100% financed from private sector investments. These renewable energy projects will be supported by special tariffs and power purchase agreements.

From the renewable sources wind seems to be the most promising source. The total wind potential is estimated at 1.8 TWh per annum. The most favourable areas for wind power potential are:
1) Djungar Gates (East side of Kazakhstan) - 525W/m²
2) Chelek Corridor(South side of Kazakhstan) - 240W/m²

Wind is going to represent about 80% of incremental capacity of renewable energy planned to be installed by the year 2020.

Kazakhstan is also rich in solar resource. Average insolation duration in the country is 2,200~3,000hr/yr. The average annual insolation is about 1 1,300~1,800kW per square metre. Kazakhstan has a big potential for local manufacturing of photovoltaic solar cells, because it has world’s second largest silicon (main raw material of solar cell) reserve.
Among the total energy resources hydro-power (small and large) has 14.6% potential (170,000 GWt), the second largest after the coal. 73% of hydro power is produced from Irtysh River, Itil River and Sirdaryo River located in East of Kazakhstan. The new hydro power plants planned to be constructed are: Mainak (300MW), Semipalatinsk (78MW) and Kerbulak (50MW). There are also 450 small size hydro power plants in the country. However, more than 90% of existing plants are out of operation. With these small hydro plants rehabilitation Kazakhstan may get up to 6 GWt additional power capacities. Kazakhstan potential in biomass power generation is available from the following sources:

- Lumber : 200,000 T.O.E
- Residue from agriculture : 87GWh
- Animal waste : 52,000 T.O.E

First pilot biomass project is going to start next year.

Kazakhstan potential in geothermal power is: 520 MWt (Free flow); 4300 MWt (Pumping OP.). Favourable areas for geothermal power plants construction are:

- Almaty : 80~120°C, 3000m
- Chimkent : 80°C, 2000m

No actual projects so far in this area.

6.5 Tariff

By the end of the year 2013 the government of Kazakhstan is going to come up with the special fixed tariffs differentiated by renewable energy sources to stimulate investments in renewable power area. Legislation base will also be reviewed to provide adequate protection to potential investors. The package will include:

- Duration of special tariffs for up to 12 years (depending on payback period)
- Tariffs are calculated to provide an adequate return on investment during the payback period.
- Off-take guarantee through Power Purchase Agreement
- Guarantee of connection to grid
The Kazakhstan will be divided in two zones (West and Central) with different tariffs stimulating projects located in the areas with better grid network. The average tariff for consumers in the area will be calculated considering more expensive electric power inflow from renewable power stations. To avoid big tariff increase, construction of new renewable power plants will be quoted to keep a reasonable balance. Prolonged land rental period (up to 49 years) will be implemented for investors in renewable energy projects.

Power Purchase Agreements can be signed either with centre distribution company (KEGOK) or local distribution companies in the area.
7. Current Challenges and Recommendations

7.1 Challenges

✓ The PPP model might encounter difficulties to emerge in Kazakhstan despite all efforts and the work done by the PPP Centre in Kazakhstan. The PPP policy and enabling environment appear not to be ready for PPPs. In addition, the political will to turn this environment into one that meets internationally recognised standards, appears to be lacking.

✓ Potential PPP projects currently pose too many risks for any trustworthy investor to engage in PPP.

✓ Those companies and investors that might engage in PPP in Kazakhstan might face considerable risk, or go for a quick win, unafraid to engage in ill-advised arrangements that are inimical to internationally recognised rules and standards.

7.2 Recommendations

In addressing challenges discussed above the following recommendations are suggested:

✓ The governmental authorities might want to consider learning from available international experience, which shows that countries with successful PPP programmes have been open to learning from others and have adapted these procedures and processes to their own countries.
  o A large number of PPP programs have been carried out in Kazakhstan over the last 10 years, all financed by many institutions like WB, ERDB and EU.
  o The authorities might want to consider revising and reviewing the knowledge and recommendations received and implement them accordingly.

✓ The authorities might also want to consider making one Ministry and/or department responsible for PPP. International experience demonstrates that success in PPP is strongly correlated with a dedicated PPP Unit with the authority to design and implement a PPP programme. While a centre in Kazakhstan has existed for some time, it does not seem to have the necessary power to take on such responsibilities.
  o It is recommended that a PPP Unit is established to take charge and coordinate the PPP process
  o Transform the existing Kazakhstan PPP centre into a PPP Unit as defined by the World Bank
Good Governance of PPP
- The governmental authorities might want to consider implementing the PPP Good Governance Guide (2009) as written by the UNECE.
- It is also suggested to change the current rules and regulations which are very complicated and do not address all the essential aspects of PPP.
- The Government might also want to consider adapting the PPP law to international standards.
  - The existing PPP Law still does not meet international standards and this is considered a crucial step towards attracting investors.
- It is recommended to create a clear legal environment that will fight corruption more efficiently.

The authorities are also suggested to create a transparent and open tender process to:
- Attract foreign investment
- Get value for money for the Government from PPPs and therefore benefit the tax payers
- Fight corruption and mismanagement
- Develop local SMEs and create not only jobs
- Implement an inclusive 'learning by going process' that brings actual projects to the market.
- Start doing PPP projects involving all stakeholders in the PPP environment and implement the lessons learned immediately to improve the PPP policy and environment.
Follow up and the way forward

The meeting organised to follow up and to discuss the draft of the report included representatives of the Business Advisory Board (BAB)\(^1\), Mark Halliday in person, and Pedro Neves (by Skype; Jan van Schoonhoven the project leader participated through Skype). A representative of the Eurasian Development Bank and representatives of the EBRD were also in attendance. While the Director of the PPP Unit and the Deputy Director of the PPP unit could not attend the PPP Unit was nevertheless represented at a senior level.

Status of PPP in Kazakhstan and prospects for the use of PPPs in the green economy

The country has a strong potential to use PPP for the development of its infrastructure for a number of reasons. It has a need for significant new infrastructure to contribute to the delivery of the goals of the Kazakhstan 2050 Strategy, a state plan aimed at bringing Kazakhstan into the ranks of the world’s thirty most-developed countries by the middle of the twenty-first century. It has substantial oil reserves and other non-renewable mineral resources, many of which earn revenues in hard currencies such as the US dollar.

Its economic policy sees a role for the private sector in the delivery of infrastructure and public services. It has relatively developed legislation. It has a national PPP Unit – as well as some regional PPP Units – the only CIS country to have such a national agency. It also has a real strategic economic motivation: namely to develop its infrastructure so that, as a landlocked country, it can ensure access of its natural resources to international markets.

However, despite all this and despite the numerous conferences, training of staff and many blueprints of projects that are at a very early stage in their development, the country has to date failed to make a single PPP operational.

As a result, the early optimism of the international private sector to do business in the country has declined. Other opportunities in other countries are presenting themselves and choices will have to be made by companies who previously were eager to enter the Kazakh market.

What explains the lack of a true project pipeline in Kazakhstan?

There is probably no single factor explaining the disappointing status of PPP in the country - rather there are several causes that are interconnected;

- The legislation, although recently improved, still lacks clarity in some important aspects such as the ability of lenders to take the assets in the project as security.

\(^1\) The UNECE ICoE PPP Business Advisory Board was approved by EXCOM on 30 April 2014 and consists of representatives from leading companies involved in PPPs worldwide.

http://www.unece.org/index.php?id=32412
The financing: weakness of banks to provide long term lending and the weakness of the pensions funds and other institutional investors is pronounced (although there is the Kazakhstan Development bank which could play a strong role in PPP).

The capability within the government to draw on financial models and business plans and use them efficiently and speedily to make commercially realistic decisions. While it is commendable that there is a widespread participation of different bodies in PPP decision taking, there is also a lack of an entity providing leadership and coordination within the Government in taking the project forward as part of a unified programme, using standardised procedures.

As it stands there is in the country a gap between the ‘project structure’ and what can be described as the ‘deliverable business structure’ that addresses the project goals.

What would of course help is the experience that comes from an actual successful project. All the uncertainties would disappear and the experiences and procedures learnt could become the path for other projects to follow. But even here, the project nearest to closure, the ring road in Almaty, “Bakad”, which is supported by the EBRD and the IFC, appears to suffer still – after several years – from doubts over the following:

- The use of international commercial arbitration in case of dispute
- Provisions offered by the Government ensuring against currency risk
- Provisions by which the government provides a minimum reviewed guarantee to the private operator

Clearly one of the tenets of PPP is putting at money at risk so that the private sector is incentivised to perform to a high standard, but still in countries like Kazakhstan, without a track record in PPP and a view that there are genuine risks to doing business in the country, the government may feel minded to make concession to the private operator to get this project over the line.

What is the way forward?

There was a consensus amongst many - and certainly the audience based outside the country - that Kazakhstan needs to implement a project now. It needs to do this urgently both to set the path for itself in PPP and to reassure the investor community that it is still serious. Even if the first project is done outside the prevailing legislation in order to avoid some of the elements which give concern to investors, it still would be a major achievement to develop a project of significance in the country. It would furthermore send a strong signal to the international business community that Kazakhstan is open to business.

The PPP unit, by contrast, appears to realise the magnitude of the challenge it faces to get even this project through. It has come to play a mediating role between the government on the one hand and the investor community on the other. Surely, its task eventually should
become to play a more prominent leadership role within the Government to take PPPs forward.

Overcoming these barriers are also critical to implement the green economic agenda as private investment and PPP will be a critical requirement for success in Kazakhstan's commitment to sustainable development.

If it is successful in one project, it can also inspire neighbouring countries in central Asia, who themselves are looking for models to follow that are closer to home, rather than those based far away, in countries in the UK or Germany.

How can the BAB help?

There are three main ways that BAB might contribute:

First, it could help in getting the ring road project ‘ ‘Bakad’’ (Almaty) to closure - perhaps by the BAB playing a mediating role, explaining to the government what the requirements of the private sector are, in partnering a project with a Government.

Second, it could advise the Government on its project pipeline and prioritise the group of projects that it might start and also help to insert these projects into an overall PPP policy – such an overall PPP policy is lacking.

Third, it could ensure that the projects pursued are then developed into templates that can be used more widely by the government so that a project pipeline is created. As it concerns Health, Water and Sanitation. Renewable Energy, Internet etc. the UNECE can provide such templates based on international best practices.

This contribution would of course not be able to be made without some funding being made available and would need to be negotiated with the Government and possibly by some external donor. The most important thing is to ascertain whether the Government might be interested to pursue this proposal.
<table>
<thead>
<tr>
<th>Time</th>
<th>Organisation</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.00 - 13.00</td>
<td>Ministry of Regional Development</td>
<td>Astana, 'Yessil' district, Orynbor st, 8, 'House of Ministries', 10 entrance, 4 floor.</td>
</tr>
<tr>
<td>15.00 - 17.00</td>
<td>Ministry of environment protection</td>
<td>Astana city, Orynbor str., 8 The House of Ministries Block &quot;A&quot; entrance 14,</td>
</tr>
<tr>
<td>15.00 - 17.00</td>
<td>Ministry of industry and New Technologies</td>
<td>Transport Tower building, 32/1 Kabanbai batyr avenue, Astana</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Organisation</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.00 - 11.30</td>
<td>Ministry of Regional Development</td>
<td>Astana, 'Yessil' district, Orynbor st, 8, 'House of Ministries', 10 entrance,4 floor.</td>
</tr>
<tr>
<td>11.30 - 13.00</td>
<td>Samruk-Energy</td>
<td>Kabanbay knight, 17, Block E, office 217 Business Center &quot;Lyk Oil&quot;</td>
</tr>
<tr>
<td>15.00 - 16.30</td>
<td>KEGOK</td>
<td>37, Beibitshlik Ave.</td>
</tr>
<tr>
<td>16.30 - 18.00</td>
<td>KAZNEX Invest</td>
<td>Syganak str. 25, Business Center &quot;Ansar&quot;, 2 floor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Organisation</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.00 - 12.00</td>
<td>Public event</td>
<td>Kazakhstan Public-Private Partnership Center JSC 65, Temirkazyk St. 3th floor</td>
</tr>
<tr>
<td>12.00 - 13.00</td>
<td>UNDP</td>
<td>Rassul Rakhimov, 8705 1715988</td>
</tr>
<tr>
<td>13.00 - 14.30</td>
<td>NL Ambassador</td>
<td>Satti restaurant, Kabanbai batyr ave. 31</td>
</tr>
<tr>
<td>15.00 - 16.00</td>
<td>meeting with Vice-Minister of Economic Planning &amp; Budgeting Mr. M. KUSSAINOV</td>
<td>Astana, left bank, Orynbor str., 8, entrance 7, administrative building 'The house of ministries'</td>
</tr>
<tr>
<td>17.00 - 18.30</td>
<td>BoD</td>
<td></td>
</tr>
</tbody>
</table>
### 7 November

<table>
<thead>
<tr>
<th>Time</th>
<th>Institution</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.30 - 13.00</td>
<td>Samruk-Kazyna Invest</td>
<td>Orynbor str. 10, (Kazyna Tower)</td>
</tr>
<tr>
<td>15.00 - 16.00</td>
<td>GRATA</td>
<td>Kunayev str 12/1, 2 floor, office BII 27</td>
</tr>
<tr>
<td>17.30 - 18.30</td>
<td>KDB</td>
<td>Orynbor str. 10, (Kazyna Tower)</td>
</tr>
<tr>
<td>15.00 - 16.30</td>
<td>WORLD BANK</td>
<td></td>
</tr>
<tr>
<td>16.30 - 18.00</td>
<td>EBRD</td>
<td></td>
</tr>
</tbody>
</table>

### Additionally

<table>
<thead>
<tr>
<th>Time</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.00 - 11.30</td>
<td>GRATA</td>
</tr>
<tr>
<td>11.30 - 13.00</td>
<td>CHEVRON</td>
</tr>
<tr>
<td>15.00 - 16.30</td>
<td>COLIBRI Law Firm</td>
</tr>
<tr>
<td>16.30 - 18.00</td>
<td>UNDP</td>
</tr>
</tbody>
</table>

### Institution

<table>
<thead>
<tr>
<th>Ministry of environment protection</th>
<th>H.E. Kapparov Nurlan Zhambulovich</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Low-Carbon Development</td>
<td>Sergazina Gulmira Halelovna</td>
</tr>
<tr>
<td>Department of Green technologies and Attracting Investment</td>
<td>Sospanova Aynur Saparbekovna</td>
</tr>
<tr>
<td>Department of Environmental Legislation and Legal Support</td>
<td>Akrachkova Dina Viktorovna</td>
</tr>
<tr>
<td>Department of Information Technologies</td>
<td>Anton Grigorievich Zaitsev</td>
</tr>
<tr>
<td>Department of Strategic Planning and Monitoring</td>
<td>Tashkenbaeva Saule Kanatovna</td>
</tr>
<tr>
<td>Department of Electricity and Coal Industry</td>
<td>Bokenbaev, Zhakyp Kuttybekovich</td>
</tr>
<tr>
<td>Department of International Cooperation</td>
<td>Raev, Olzhas Kairbekovich</td>
</tr>
<tr>
<td>Department of Strategic Planning</td>
<td>Bekenov, Berwick Temirgalievich</td>
</tr>
<tr>
<td>Office of Information</td>
<td>Kenjebayeva, Aigul Karzhaubaevna</td>
</tr>
<tr>
<td>Ministry of Economic Planning &amp; Budgeting</td>
<td>Mr. Urazbayev Olzhas, Head of Division</td>
</tr>
<tr>
<td>Ministry of Transportation and Communication</td>
<td>Mr. Bolshakov Vitaliy</td>
</tr>
<tr>
<td>Ministry of Regional Development</td>
<td>Rustambek - 743021</td>
</tr>
<tr>
<td>Institution (Private)</td>
<td>Name</td>
</tr>
<tr>
<td>----------------------</td>
<td>------</td>
</tr>
<tr>
<td>Private</td>
<td></td>
</tr>
<tr>
<td>Samruk-Green Energy</td>
<td></td>
</tr>
<tr>
<td>Samruk Kazyna Invest</td>
<td></td>
</tr>
<tr>
<td>Samruk-Energy JSC</td>
<td>Chairman of Managing Board Almasadam Satkaliev</td>
</tr>
<tr>
<td>KEGOC (Kazakhstan Energy Grid Operating Company)</td>
<td>No direct contact details. <a href="mailto:kegoc@kegoc.kz">kegoc@kegoc.kz</a></td>
</tr>
<tr>
<td>Members of Kazakhstan business counsel for sustainable development</td>
<td>Gulsara Yedilbaeva</td>
</tr>
<tr>
<td>LLP &quot;Law firm &quot;Grata&quot;</td>
<td></td>
</tr>
<tr>
<td>Investors and Banks</td>
<td></td>
</tr>
<tr>
<td>Kazakhstan Development Bank</td>
<td></td>
</tr>
<tr>
<td>Kazakhstan Development Bank</td>
<td></td>
</tr>
<tr>
<td>EBRD</td>
<td>Janet Heckman, Director, Kazakhstan</td>
</tr>
<tr>
<td>UNDP</td>
<td></td>
</tr>
<tr>
<td>WORLD BANK</td>
<td></td>
</tr>
<tr>
<td>Press and other public organisations</td>
<td></td>
</tr>
<tr>
<td>Kazakhstan PPP Center</td>
<td>Zhomart Abiyessov, Chairman of the Board</td>
</tr>
<tr>
<td>PPP Center of Karaganda</td>
<td>Aimgul Batyrbekova - Chairman of the Board</td>
</tr>
<tr>
<td>Akimat of Karaganda oblast</td>
<td></td>
</tr>
</tbody>
</table>
KAZNEX invest JSC
Contact Details: info@kaznexinvest.kz Managing Director - Ardak DOSSANOV, tel.: +7 7172 79 17 18 (ext.1081), e-mail: dossanov@kaznexinvest.kz
Corporation for Export Development and Promotion», JSC is a development institute under the Ministry of Industry and Trade of the Republic of Kazakhstan.

Law Firms
GRATA
Samat Daumov, Managing Partner, Director of Astana Office, Representative in Kostanay, GRATA Kazakhstan
Managing Partner for Law Firm

COLIBRI Law Firm
Revaz Javelidzerevaz, email: revaz.j@colibrilaw.com
Infrastructure, Energy and Nuclear Projects

Annex 2 Tables
Table 1 - 2030 Projected Sources of Energy .................................................................27
Table 2 - Unconventional and Renewable Energy Sources in Kazakhstan .....................31

Annex 3 Overview Articles