Renewable Energy Auctions in Kazakhstan

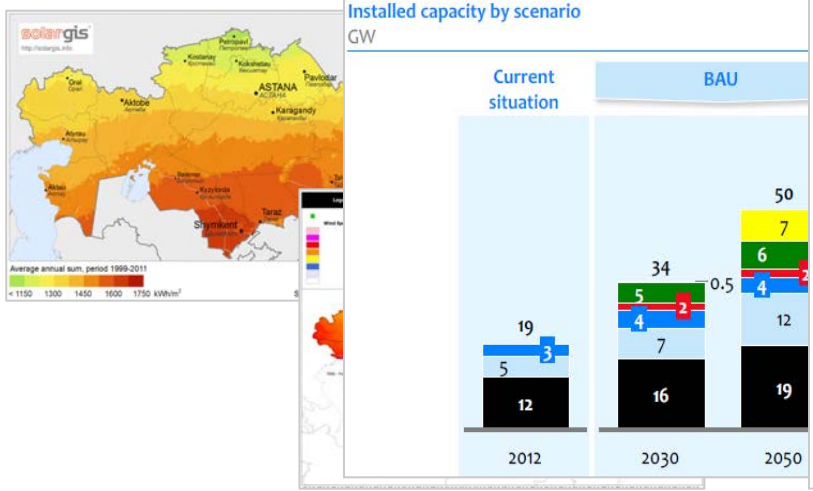
Central Asia Regional Economic Cooperation (CAREC) Investment Forum 2017

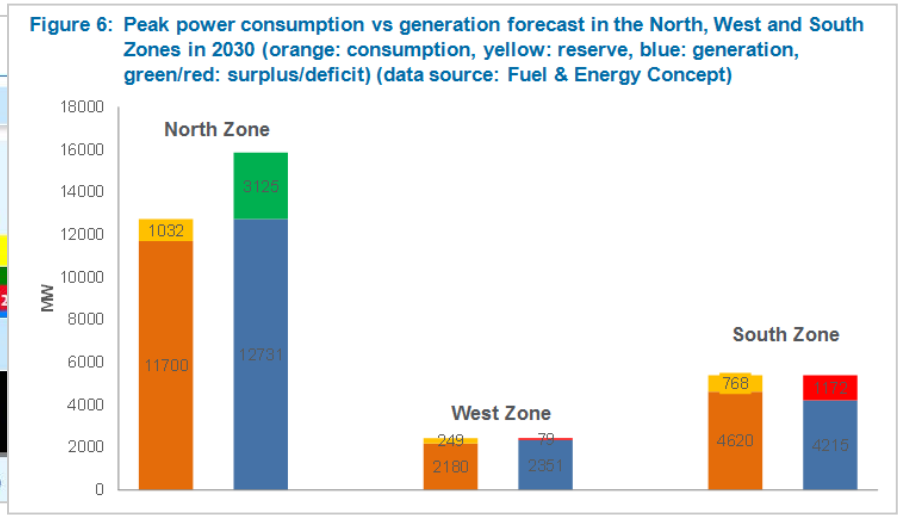
Astana, 17th July 2017

Renewable Energy in Kazakhstan

- Kazakhstan has great potential for RES, especially for solar, wind and hydro
- One of the most advanced countries in Central Asia in terms of energy market and tariff policy
- Introduced the “RES Law” in 2009
- Concept for transition to Green Economy (2013) setting targets
  - 3% wind + solar by 2020
  - 30% RES (+ nuclear) by 2030
  - 50% RES (+ nuclear) by 2050

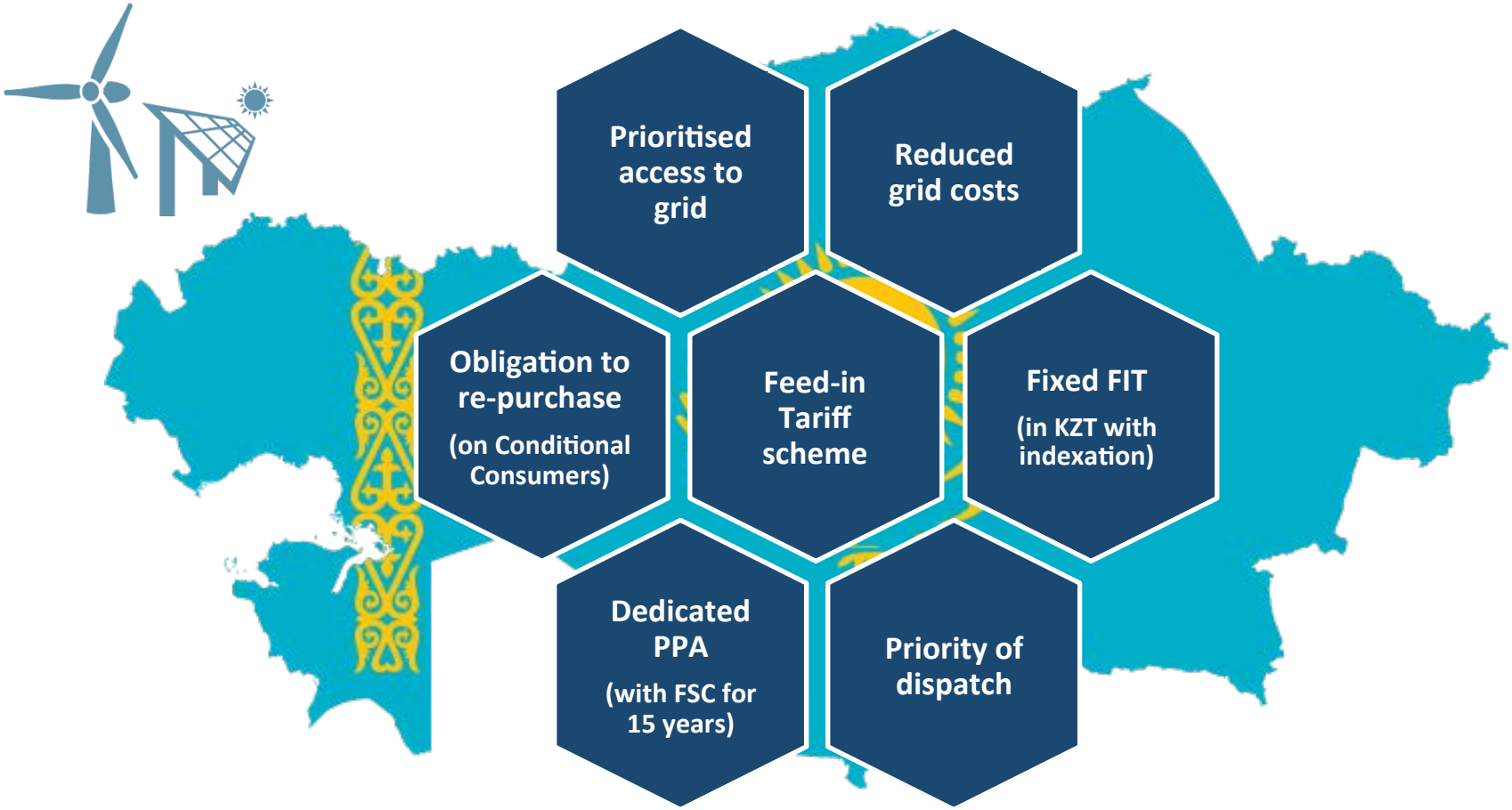
  Focus is on wind (4.6GW by 2030) but installation trend shows solar will play a big role
- North-south power unbalance (North-South HV corridor being reinforced) calling for additional generation capacity in the southern regions





- Jul 2009 - Law on the support to renewable energy sources ("RES Law")
- May 2013 - Concept on the transition to Green Economy
- Jun 2014 - Introduction of the Feed-in Tariffs and related rules
- Mar 2015 - First standardised RE PPA model with FSC
- Jul 2016 - Rules for the formation of the RE Siting Plan
- Nov 2016 - New rules for inclusion into the RE project list ("RE List")
- Dec 2016 – As of end of year, wind and solar share in generation is 0.4%

Existing RES support mechanism in Kazakhstan



Key obstacles for the development of renewable energy in Kazakhstan

1. Need for a more transparent and reliable regulatory framework
2. Lack of long-term creditworthiness and short-term liquidity of the off-taker (FSC)
3. Uncertainties related to the possibility to interconnect a significant amount of non-programmable RES projects to the grid
4. Unattractiveness of the FIT due to lack of foreign currency indexation*
5. Weak Renewable Energy re-purchase obligation on Conditional Consumers
6. Lack of bankability of the current contractual framework
7. Shortage of long-term Tenge financing

**MoE introduced a partial indexation in April 2017*

Overview on RES Support Mechanisms


Fiscal support
(tax relief, exemption from duties, etc.)
Grid integration support
(interconnection rights, dispatching priority, reduced costs)
Regulatory support
(streamlined permitting procedures, etc.)
Country RES policy and strategy
Economic support
(on revenues or costs, FiT, fixed energy price, etc.)
Dedicated financing instruments
(longer maturity, reduced interests, etc.)
Other
(socio-economic measures, local content)

Assignment criteria	Pricing criteria
First-in first-served First to apply is granted access to the mechanism and others to follow up to a certain cumulated capacity or incentive cap	**FIT (classic)** The tariff is fixed and determined at central level based on current market trends and costs
Competitive scheme A fixed price is assigned to successful bidders after developers are put in direct competition and are evaluated based on a range of criteria	**Competition-based pricing** The price is fixed and determined based on competition between bidders. Pricing criteria can be, e.g., lowest price offered.
Direct proposal Project developers proposing projects and negotiating conditions with the off-taker / system operator	**Negotiation** The tariff is negotiated with the counterparty

174
countries with RES policy

64 (increasing)
countries with competitive schemes

110 (decreasing)
countries with feed-in policy

Source: IRENA (2015)

Tenders, auctions

- Increasing use of competitive schemes in consolidated and new markets
- Competition drives costs down
- Leading to «true price» or best price for a given market
- Competition stimulates technological improvements

Feed-in

- Scheme being phased out in developed markets
- Markets (prices) changing quickly → FITs become outdated as their are issued
- FITs may not reflect a perception of country risk
- Require frequent policy re-adjustments
- Ok for small projects (domestic, etc.)

Auction or Tender?

Auction

(e.g. Argentina, Brazil, Italy, Chile, Perù, South Africa)

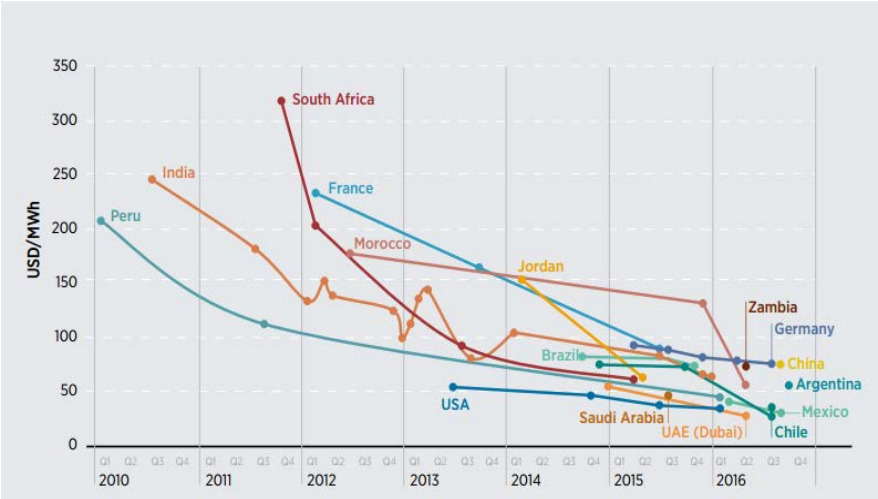
- Bid for volume (capacity or energy)
- Typically BOO schemes
- Own projects

Tender

(e.g. Dubai, Abu Dhabi, Oman, Jordan, Saudi Arabia)

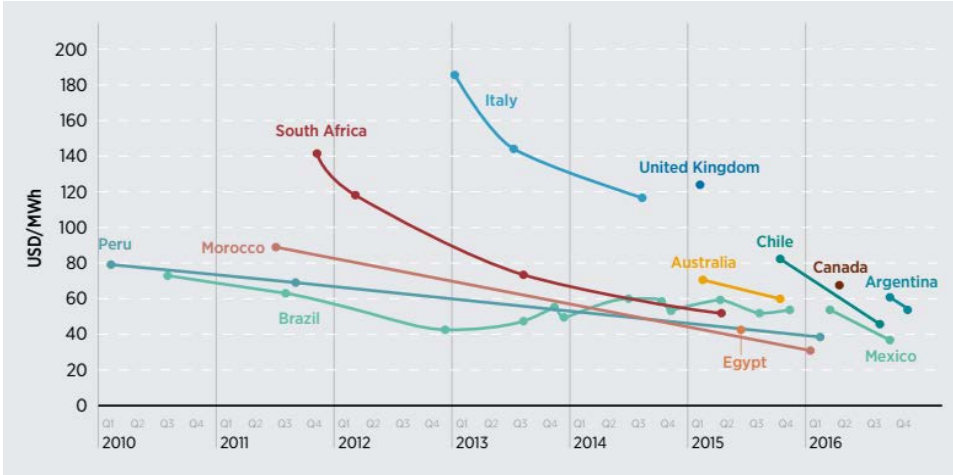
- Bid for specific projects
- Various schemes (EPC / BOT / BOO), possibly through PPP
- Central planning and own projects

Auctions for Renewable Energy



Evolution of average **solar** prices in auctions / tenders

Evolution of average auction prices for **onshore wind** energy



Source: IRENA, Renewable Energy Auctions – Analysing 2016, IRENA, 2017

Auction implementation process

Preparation

- Define goals
- Assess existing market situation
- Establish desired level of committment
- Identify key parties
- Define Auction budget
- Define preliminary implementation schedule
- Assess regulatory existing framework
- Assess best practive and becnhmarks
- Planning of projects (centralised vs de-centralised)
- Identify constraints
- Identify other desired objectives / expectations (e.g. Socio-economic development, etc.)

Design

- Establish competition strategy
- Define Auction volume(s)
- Identify demand-side responsibilities
- Define qualification criteria
- Prepare documentation package
- Define bidding procedure and selection criteria
- Define selection criteria
- Set up competition enhancement instruments
- Establish rules for determining payment to winners
- Fix implementation schedule

Implementation

- Announce Auction
- Organise meeting with interested bidders
- Launch call for bids
- Respond to questions / requests for clarification raised by bidders during the process
- Shortlist bidders
- Collect bids within deadline
- Evaluate bids
- Select winners
- Publish results
- Negotiate and sign contracts selected bidders

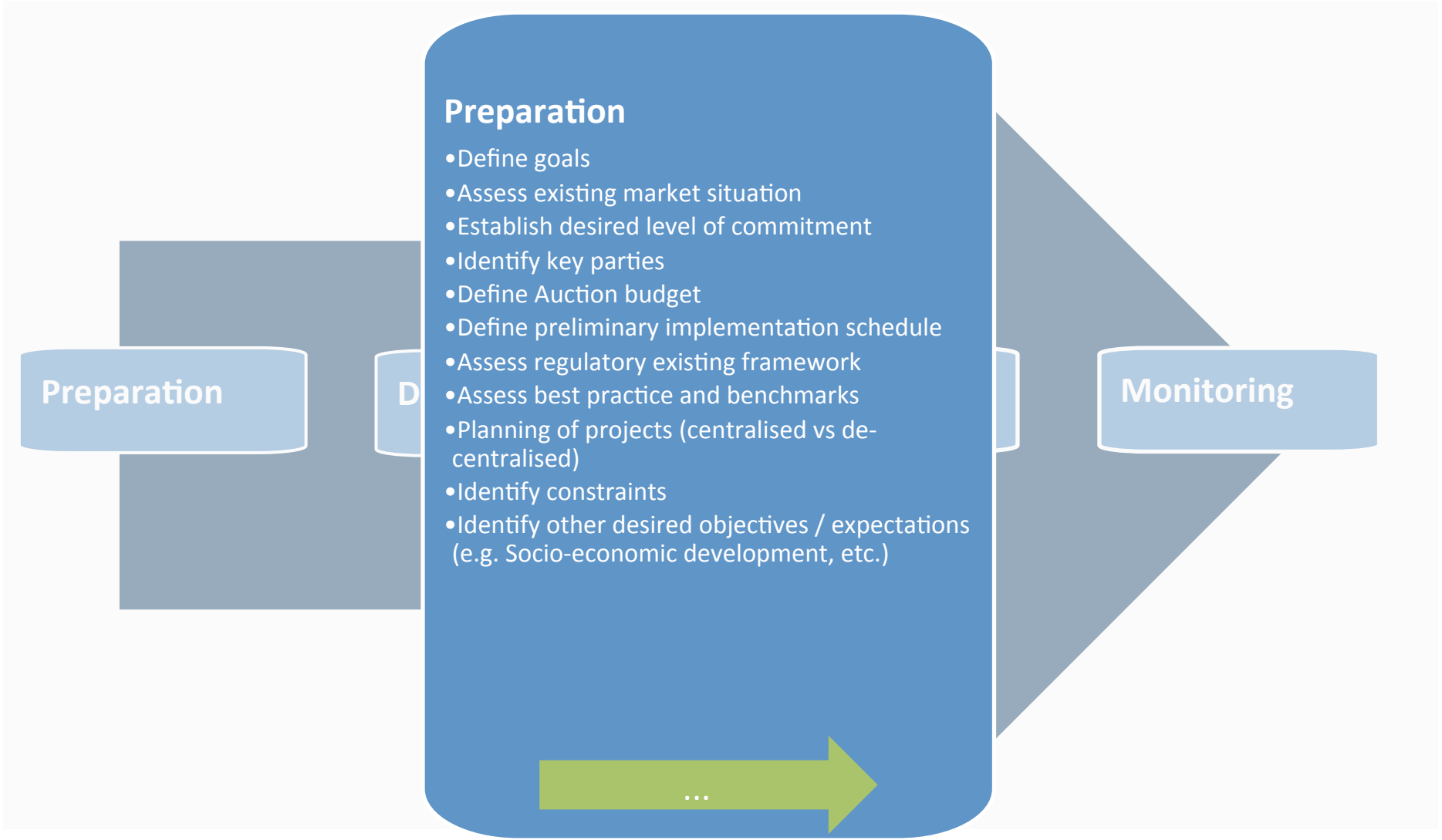
Monitoring

- Monitor status of implementation of RES projects
- Monitor execution of signed contracts
- Monitor Auction KPIs

Source: IRENA, Renewable Energy Auctions - A guide to design, IRENA, 2015

Implementing Auctions in Kazakhstan

Define contractual framework	• BOO-like schemes with a certain level of support from the Government • General contractual frameworks regulating relationship between the operator and the Government (or Governmental Agency) (PPA, GCA, land lagreements, etc.)
Define Auctioneer	• Regulatory agency / electricity market operator / MOE or MOE-related agencies • Role of the Auctioneer: (i) set-up infrastructure for conducting Auctions, (ii) define Auction structure and prepare documentation, (iii) monitor Auctions
Off-taking scheme	• Creditworthiness & short-term liquidity • Necessary skills and knowledge to manage the new contractual basis • Strong re-purchase obligations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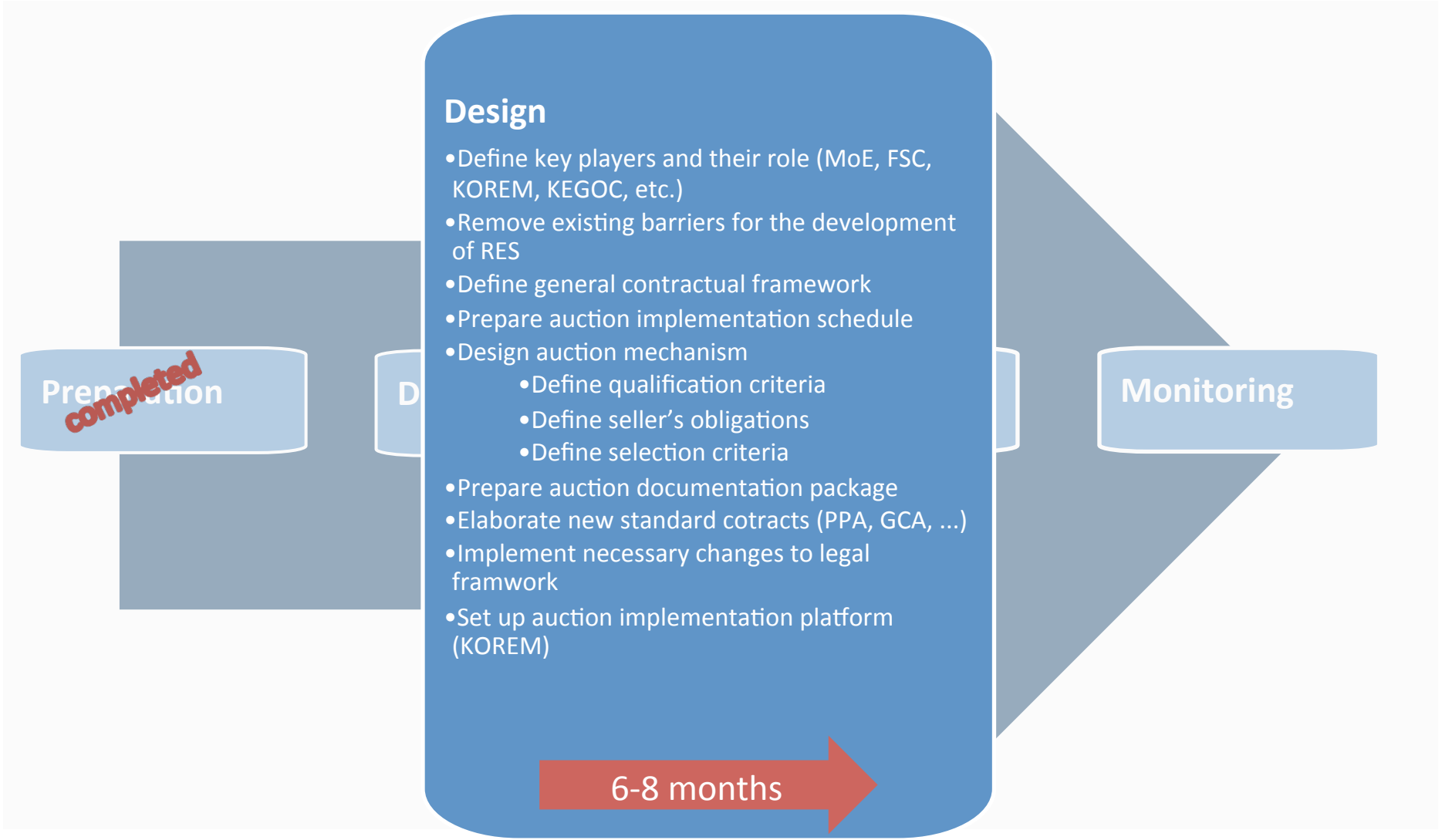

completed
Monitoring
Design
•Define key players and their role (MoE, FSC, KOREM, KEGOC, etc.)
•Remove existing barriers for the development of RES
•Define general contractual framework
•Prepare auction implementation schedule
•Design auction mechanism
•Define qualification criteria
•Define seller's obligations
•Define selection criteria
•Prepare auction documentation package
•Elaborate new standard cotracts (PPA, GCA, ...)
•Implement necessary changes to legal framwork
•Set up auction implementation platform (KOREM)
6-8 months

GENERAL

- Auctioneer → KOREM (+MoE)
- Off-taker → FSC
- Design of auction → MoE to issue (and revise) procedures through legal acts
- Supporting scheme → No major changes (evaluate possible extension of the term to 20-25 years)
- Contractual scheme →
  - Dedicated PPA with fixed price (vs FSC)
  - Dedicated Grid Connection Agreement (vs KEGOC/RES)
  - Re-purchase obligation (FSC vs Conditional Consumers)
- Auction structure →
  - Qualification stage
  - Bidding stage (electronic)
  - Contract negotiation and signing
- Auction format → electronic, via KOREM online trading platform
- Auction costs → compensated by Bidders (participation fee – 5-15kUSD/project))
- Frequency → 6 monthly for at least 1.5-2 years

QUALIFICATION

- Technology → Solar PV and Wind (and Mini-Hydro?)
- Restrictions → None, any project that qualifies can compete (in the same technology group)
- Volume → Overall volume (MW) and specific for zones (depending on Siting Plan). Volume should be disclosed at the auction announcement
- Local content requirements (LCR) / dedicated support → Not foreseen
- Socio-economic development requirements → Not foreseen
- Other qualification requirements → max project size, use of state-of-art technology, need for land rights / concession, permits and licenses, access to the grid, etc.
- Projects → self-developed by Bidders
- Existing projects →
  - Projects already in the RE List (PPA not signed) may elect to participate to auction
  - Projects with signed PPA (construction not yet started) may elect to participate to auction and, if selected they can choose between (i) existing PPA or (ii) new PPA

BIDDING

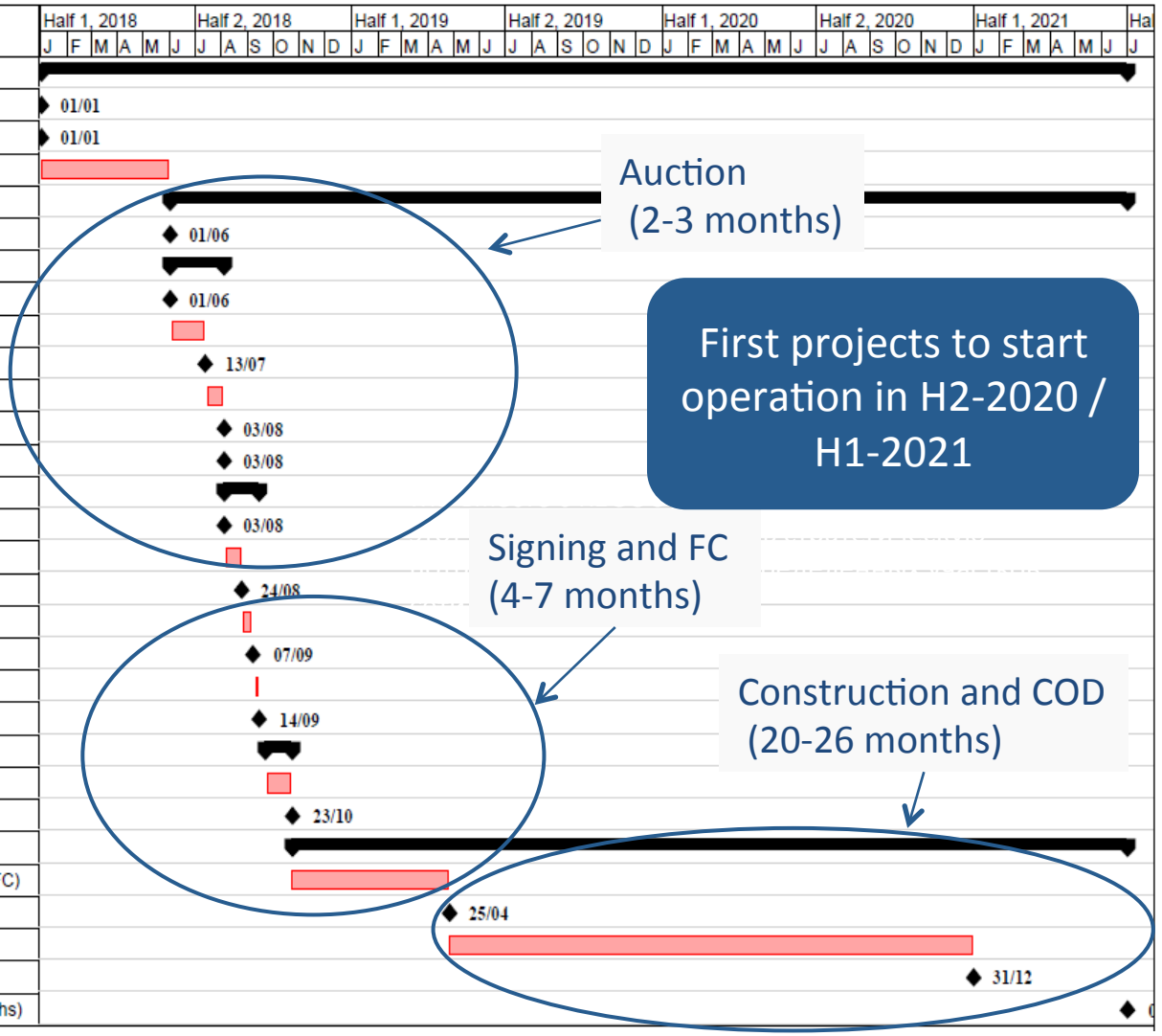
- Bidding procedure → Electronic bidding and submission of documents (KOREM)
- Ceiling price →
  - MoE to define ceiling price. For 1st auction, ceiling price = current FiT (?)
  - Ceiling price should be disclosed beforehand (at least for the 1st auction)
- Selection criteria →
  - Lower price (or lower FSC exposure, i.e. Price + FOREX component)
  - In case of same price, other criteria to be defined (LCR, earliest COD, other) based on MoE priorities
- Matching demand-offer → Upward adjustment (to be evaluated by MoE + KEGOC)
- Payment →
  - Pay-as-bid
  - Energy-oriented with fixed energy price (per kWh)
  - FOREX indexation (ca 80-85% or subject to bid)
  - CPI adjustment

SELLER'S OBLIGATIONS

- Securing Bidder's commitment → Bid bond/deposit
  - Returned upon (i) not qualifying, (ii) losing auction or (iii) signing PPA
  - Lost if (i) Bidder does not bid after qualification or (ii) PPA not signed in time
  - Bond/deposit to increase after qualification (e.g. 1% CAPEX before, 2% after)
- PPA signing → Deadline (e.g. 1 month)
- Schedule →
  - Longstop Financial Closure (FC) Date: 3-6 months from signing
  - Required COD (RCOD): 18-24 months from FC
  - Longstop COD (LSCOD): RCOD + 6 months
  - Term: 15 years (but what come after PPA expiry? MoE to evaluate possible extension)
- Securing schedule →
  - Performance Guarantee (bond/deposit) for securing COD to be provided at signing
  - Delay in signing → loss of tariff and deposit
  - Delay in FC → PPA termination and loss of (part of or all) Performance Guarantee
  - Delay in COD → delay LDs (or reduced energy price by x%/month) until LSCOD (→ termination)

Auction schedule – an example

	Name
1	**Auction programme**
2	Public announcement
3	Publication of instructions
4	Lead time, clarifications, meetings with developers, etc.
5	**Auction #1**
6	Announcement (call for bid)
7	**Phase 1: Qualification**
8	Opening of Qualification Phase
9	Submission of qualification documents
10	Deadline for submitting qualification documents
11	Evaluation period
12	Communication of qualified participants
13	Closing of Qualification Phase
14	**Phase 2: Bidding**
15	Opening of Bidding Phase
16	Bid submission period
17	Deadline for bid submission
18	Evaluation period
19	Communication of winning bidders
20	Confirmation by winners
21	Closing of Bidding Phase
22	**Phase 3: Negotiation**
23	PPA negotiation
24	PPA signing
25	**Phase 4: Implementation**
26	Financial Closure lead period (assuming 6 months to FC)
27	Longstop Financial Closure Date
28	Construction Phase (assuming 20 months)
29	Required Commercial Operation Date
30	Longstop Commercial Operation Date (RCOD+6 months)



Implementation of the Auction Mechanism in Kazakhstan according to international best practice requires that majority of the RE primary and secondary laws, including legislation developed recently in 2015-2016, is considerably modified

Main legislation
("RES Law" #165 - 4.7.2009)

- New terminology to be introduced
- Additional authorities to MoE for preparing & approving Auction Rules and define Ceiling Price
- Redefine roles of MoE, FSC and KOREM
- Introduce general terms and conditions of the competitive schemes
- (Potentially) Extension of the term from 15 to 20-25 years

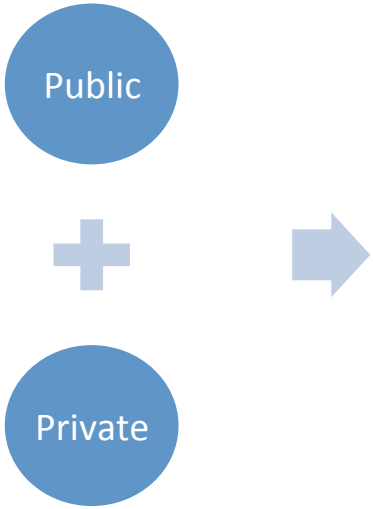
Secondary legislation
(MoE Orders)

- Redefine role of the "RE List" and introduce "qualification criteria"
- Review queuing procedure of "Siting Plan"
- Modified (new) PPA and GCA to cover intl. bankability requirements
- Introduce concept of ceiling tariff
- Introduce Auction Rules
- Amend formula for calculation of the RE support tariff

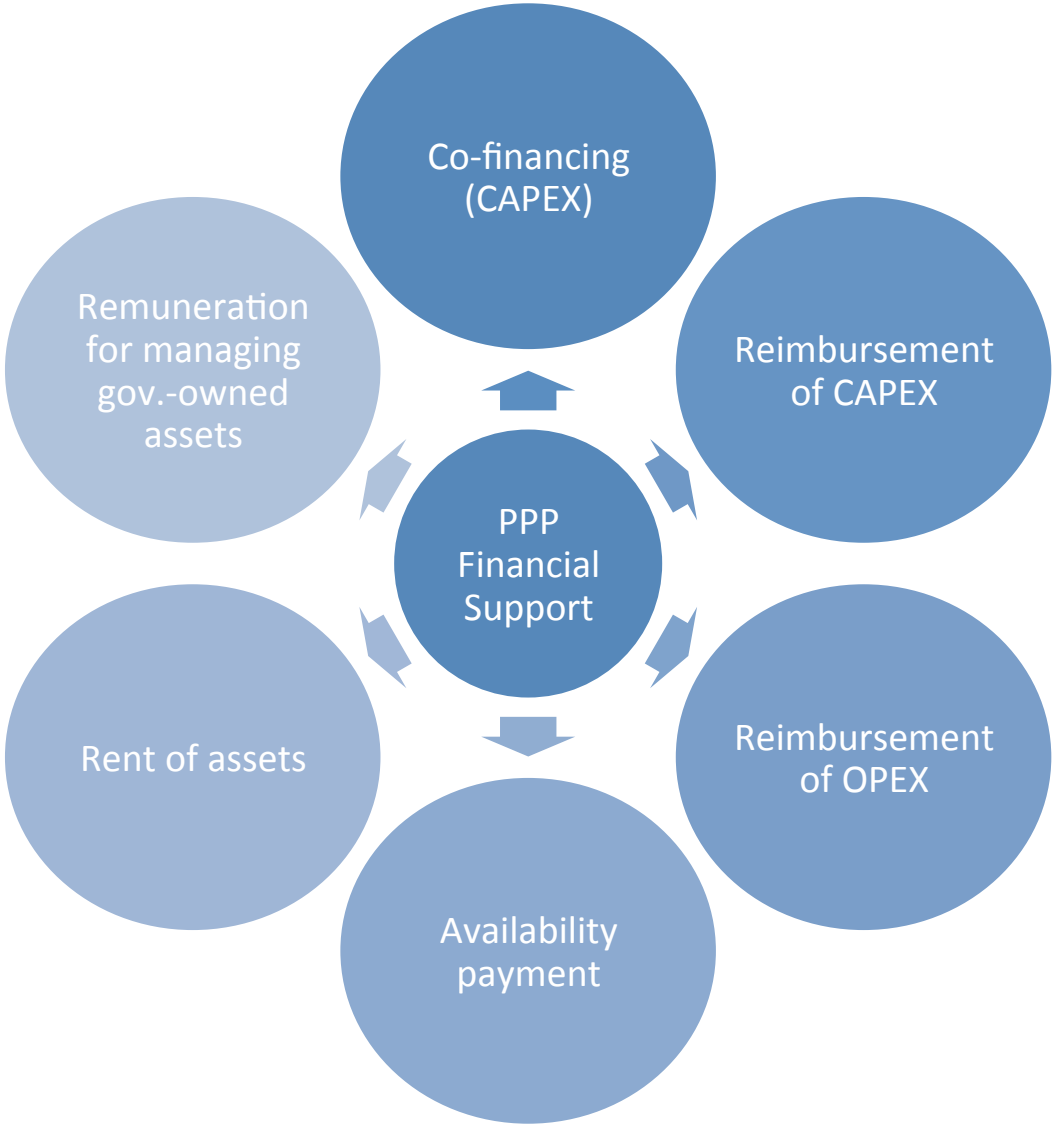
Land Code

- Public land for RE projects shall be allocated by means of tenders → this should be reconsidered

RES Projects Implementation via PPP



An aggregate of medium-term and long-term relationships between the government and the private sector for the provision of socially significant works or/and services of development, financing, construction, reconstruction, rehabilitation, and exploitation or servicing of objects by the private sector


Co-financing (CAPEX)
Reimbursement of CAPEX
Reimbursement of OPEX
Availability payment
Rent of assets
Remuneration for managing gov.-owned assets
PPP Financial Support

- FSC and the off-taking structure are not "bankable" → GoRK is a stronger counterparty

- Contractual shortcomings under the RES legislation (e.g. PPA)

- Current tariff insufficient to guarantee sustainability of projects

- Selection of a private partner may take place via tendering or via "direct negotiation" (private initiative). The latter is a much simpler procedure

- Potential need for development of energy projects in certain areas of the country that are "not attractive" and/or "not competitive"

- project needs to be "pre-planned" with known location, technical requirements, etc.

- developer shall justify the "social importance" of the project

- Complicated and time consuming procedures

- In case of co-financing or CAPEX compensation, ownership needs to be transferred to the Govt. → BOO scheme not possible + Govt. has no capacity to manage

- Compatibility with Siting Plan and FiT is not clear

CONCLUSIONS

- PPP mechanism cannot be seen as a replacement for other mechanisms (FiT or competitive schemes) but as an “alternative” for specific cases

- State support measures under PPPs may be used by the Govt. for specific projects of greater need (remote areas, off-grid systems, strategic projects)

- Certain aspects need to be regulated properly and adjusted to the RE context

Conclusions

Key messages

- Auctions are potentially a good instruments for defining the "actual value" of renewables in Kazakhstan
- Regardless of the support scheme, some key barriers have to be removed:
  - Greater transparency and clarity of the regulatory scheme
  - Introduce a satisfactory FOREX indexation of the tariff
  - Strengthen the energy off-taking scheme
  - Introduce a bankable contractual framework
- Implementing the auction mechanism requires time and effort, first projects will not start operation soon → 2020 targets are unlikely to be met
- Amendments to the main and secondary legislation are required
- PPP mechanism cannot be seen as a replacement for other mechanisms but as an "alternative" for specific projects of strategic importance

Next steps

- MoE to proceed with the design of the auction. Ideally an "auction team" should be set up, composed of MoE personnel, international consultants, local legal advisors, to work in close cooperation with FSC and KOREM. Ideally, a Project Manager should be appointed to ensure adherence to schedule
- Remove existing barriers to the development of RES in Kazakhstan
- Design the auction
  - Defining each element starting from the preparatory work done
  - Prepare the necessary documents and forms
  - Prepare the contract forms
- Capacity building inside MoE and FSC for managing implementation and monitoring phase
- Draft and implement the necessary legal changes

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