Kyrgyzstan’s Transition to Sustainable Energy: Barriers and Solutions

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Recent trends and developments

- Patterns of regional electricity trade;
- Climate change vulnerabilities;
- Energy abundancy vs energy deficiency;
- National strategies highlight role of FDI, but regulatory and institutional barriers remain;
- FDIs most of the time pursue strategic (geopolitical) objectives (not commercially driven);
- RE as a solution to ensure energy security;
- Regional electricity cooperation is key for any large-scale RE and/or EE projects.

Urgent need for modernisation of energy infrastructure and transformation of energy systems.
# Power Trade in Central Asia

While intra-regional electricity trade in 1998 accounted for over 25 000 GWh.

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<tbody>
<tr>
<td></td>
<td>Kazakhstan</td>
<td>Kyrgyzstan</td>
<td>Tajikistan</td>
<td>Turkmenistan</td>
<td>Uzbekistan</td>
<td>Afghanistan</td>
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<tr>
<td>Exports</td>
<td>353.3</td>
<td>210.6</td>
<td>14.1</td>
<td>3.3</td>
<td>210.6</td>
<td>370.7</td>
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<tr>
<td>Total</td>
<td>353.3</td>
<td>229.9</td>
<td>14.1</td>
<td>0</td>
<td>1497.8</td>
<td>2098.4</td>
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Source: CDC Energiya, 2019
According to 2016 Kazakh MoE 57% of generating capacities are over 30 years old.

Source: Fichtner, 2012
Enabling Energy Investments

National Strategies and Policies + Political Commitment

✓ Market structure and investment climate
✓ Regulatory framework, tariffs and subsidies
  ✓ Corporate governance
  ✓ Operational efficiency
  ✓ Transfers and subsidies

Energy security = adequate and reliable energy supply

Energy investments O&M expenditures
Achieving energy security and sustainable energy

- Strategic vision – long-term objectives, market structure and ownership;
- Sound institutional frameworks – policies, instruments and enforcement mechanisms;
- Regional market – regional legal and institutional framework, technical and regulatory harmonisation.
## Role of the ECT in promoting sustainable energy

<table>
<thead>
<tr>
<th>Legal Certainty and Transparency</th>
<th>A supra-national legal framework of binding character enhances transparent procedures and legal certainty</th>
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<tbody>
<tr>
<td>Foreign Investment Protection</td>
<td>Energy Charter Treaty provides security for investments</td>
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<td>Transmission/Transit</td>
<td>Common rules to coordinate interconnected systems</td>
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<td>Cross-border power trade</td>
<td>From bilateral cross-border trade to an integrated power system</td>
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**Platform for political and technical dialogue;**
**Dispute settlement – Conciliation Rules for transit disputes;**
**Model Early Warning Mechanism;**
**Model IGA and HGA for Cross-Border Electricity Projects;**
**Energy Investment Risk Assessment (EIRA);**
**In-depth Energy Efficiency Reviews.**
Get in touch with us!

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