Regional Energy Cooperation in Central Asia

UNECE Pathways to Sustainable Energy

Bishkek, Kyrgyz Republic
12 June 2018

Kanat Botbaev,
Energy Charter Secretariat
INTERNATIONAL ENERGY CHARTER PROCESS CHART as of 11.09.2017

ECT MEMBERS
AND OBSERVERS

INTERNATIONAL ENERGY CHARTER (1994)

ENERGY CHARTER TREATY (1994)

EUROPEAN ENERGY CHARTER (2003)

International Organisations with Observer Status (by decision of the Energy Charter Conference)
- Arab League
- WTO
- EISC
- CED-Energy
- OPEC
- OECD
- World Bank

European Energy Charter 1991: A political, non-binding declaration. Signature of this declaration is necessary for accession to the Energy Charter Treaty 1994. Countries and Regional Economic Integration Organisations that have signed it become Energy Charter Conference Observers.

Energy Charter Treaty 1994 (ECT): A legally binding multilateral agreement covering investment promotion and protection, trade, transit, energy efficiency and dispute resolution. Countries and Regional Economic Integration Organisations that have ratified or acceded to the Treaty are Contracting Parties.


Energy Charter Conference: The governing and decision-making body of the ECT with UN observer status. It comprises Members (Contracting Parties and Signatories of the ECT) and Observers (Signatories of the 1991 or 2015 Charter).

ECT Signatories: Countries that have signed the ECT but have not ratified it. Belarus applies the Treaty provisionally.

Acceding Countries: Countries that have been invited by the Energy Charter Conference to accede to the ECT.

Contracting Parties: Countries or Regional Economic Integration Organisations that have ratified or acceded to the ECT.
Dimensions of Energy Security

- Security of supply
- Security of transit
- Elimination of energy poverty
- Security of demand
Benefits of Regional Cooperation

Economic
- Economies of scale
- Optimal use of available resources
- Sharing capacity reserves
- Export revenues

Social
- Access to energy resources
- Poverty alleviation
- Reliability and quality of service

Technical
- Energy security
- Enhanced reliability and emergency support
- Technology transfer
- Efficiency gains

Environmental
- Climate change mitigation
- CO2 reduction
- Deforestation

Sustainable Development
# Integration of Regional Markets

<table>
<thead>
<tr>
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<th>Technical</th>
<th>Regulatory</th>
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<tr>
<td>No integration</td>
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<tr>
<td></td>
<td>Cross-border interconnections</td>
<td>Compatible regulation</td>
<td>Cross-border trade</td>
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<td>Regional coordination</td>
<td>Coordination of regulators</td>
<td>Spot market</td>
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<tr>
<td>Full integration</td>
<td>Fully integrated operation</td>
<td>Regional regulator</td>
<td>Future market</td>
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## Power Trade in Central Asia

<table>
<thead>
<tr>
<th>Year</th>
<th>Country</th>
<th>Kazakhstan</th>
<th>Kyrgyzstan</th>
<th>Tajikistan</th>
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<td>1850.8</td>
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</table>

Source: CDC Energiya 2018
Energy Balance and Mix in Afghanistan

Uzbekistan provides 35.2%, Tajikistan 30.5%, Iran 20.9%, and Turkmenistan 13.4%.

<table>
<thead>
<tr>
<th>2017</th>
<th>Total</th>
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<tr>
<td>Own consumption</td>
<td>5.569 billion kWh</td>
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<tr>
<td>Energy production</td>
<td>1.02 billion kWh</td>
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<tr>
<td>Energy imports</td>
<td>4.547 billion kWh</td>
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<table>
<thead>
<tr>
<th>Energy Source</th>
<th>Total</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Water power</td>
<td>2.89 billion kWh</td>
<td>55.1%</td>
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<tr>
<td>Fossil fuels</td>
<td>2.35 billion kWh</td>
<td>44.7%</td>
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<tr>
<td>Renewable energy</td>
<td>10.5 million kWh</td>
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<tr>
<td>Nuclear energy</td>
<td>0.0 billion kWh</td>
<td>0%</td>
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<tr>
<td>Total production capacity</td>
<td>5.25 billion kWh</td>
<td>100%</td>
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</table>

Source: DABS, Ministry of Energy and Water
Age of existing capacity

- **Uzbekistan**
  - <10 year: 7%
  - 11-20 year: 5%
  - 21-30 year: 13%
  - >30 year: 75%

- **Tajikistan**
  - <10 year: 14%
  - 11-20 year: 12%
  - 21-30 year: 74%

- **Kyrgyzstan**
  - <10 year: 4%
  - 11-20 year: 9%
  - 21-30 year: 23%
  - >30 year: 64%

- **Kazakhstan**
  - <10 year: 11%
  - 11-20 year: 11%
  - 21-30 year: 34%
  - >30 year: 44%

*Source: Fichtner, 2012*
RECA: Key observations

• Regional electricity trade depends on modernisation of infrastructure;
• National strategies highlight role of FDI, but tariff and institutional barriers remain;
• FDIs most of the time pursue strategic (geopolitical) objectives (not commercially driven);
• Re-conceptualisation of the notion of “energy security” in Central Asia;
• National strategies mainly focus on “self-sufficiency” and export – not energy savings benefits of import;
• The role of energy efficiency as a source of supply is underestimated.
Energy Charter Treaty – main focus

Energy Security

- Investment Promotion & Protection
- Trade and Transit
- Energy Efficiency

Energy Charter Treaty: Broad basic co-operation framework
European Energy Charter (declaration, East-West, Transition)
International Energy Charter (declaration, Global, Development)
Multilateral Instruments

- Dispute resolution – Conciliation Rules;
- Model Early Warning Mechanism;
- Model IGAs and HGAs;
- Multilateral Instrument on Transit of Energy Resources.
Early Warning Mechanism

- Mechanism for preventive diplomacy, confidence building and emergency measures;
- Based on voluntary acceptance by the Parties;
- Main tool transparency, exchange of information, consultation, verification (monitoring);
- Broad constituency (exporters, importers, transiters).
Early Warning Mechanism
Get in touch with us!

- Website: [www.energycharter.org](http://www.energycharter.org)
- E-mail: info@encharter.org
- Facebook: facebook.com/EnergyCharter
- Twitter: @Energy_Charter | @SecGenEnCharter
- LinkedIn: linkedin.com/company/energy-charter