Support to Energy Market Integration and Sustainable Energy in the NIS SEMISE

(Security of supply and the SEMISE project)

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Inogate 11. February 2009
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SEMISE specific objectives

Achieving the Astana goals:

- Regional energy market convergence, by supporting energy relationships between the Partner countries and between these and the EU
- Supporting energy investments, identifying project opportunities and making project preparation services
- Promoting and assisting Partner countries in development of sustainable energy: Energy efficiency and renewable energy

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**Expected Impact on security of supply in Partner Countries**

<table>
<thead>
<tr>
<th>Market Integration/convergence:</th>
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<tbody>
<tr>
<td>Improve competition and efficiency</td>
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<td>Improve trade by transparency</td>
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<tr>
<td>Facilitate investments</td>
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<tr>
<td>Fair regulatory environment</td>
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<td>Improve exploration and production</td>
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<tr>
<td>Diversification</td>
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<table>
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<th>Renewable energy</th>
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<tbody>
<tr>
<td>Diversification</td>
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<tr>
<td>RES replace other fuels</td>
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<tr>
<td>Release export potential</td>
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**Energy Efficiency**

| Reduce demand |
| Better efficiency in transformation sector |
| More competitive industry |
| CO₂ emissions reduction |
| Increased duration of reserves |
| Improved living standards |

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Barriers for Energy Markets Convergence

Country-specific problems:
- Lack- or weakness of existing energy regulators;
- Non-existent or weak competition promotion mechanisms;
- Lack of Network Operators independent of large market players;
- General under-recovering tariffs, hampering investment;
- Reluctance to allow private participation.

Regional problems
- Lack of sufficient cooperation on international arena
- Lack of common cross-border tariff mechanisms and technical codes

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Barriers for Investment attraction

Country-specific problems:

- Lack of appropriate legal investment framework
- Poor taxation system
- Lack of mature projects for financing
- Lack of proper preparation (due diligence studies – documentation)
- Strong state presence in the energy sector

Regional problems:

- Interest of regional/multilateral financing institutions
- Creditworthiness of Partner Countries’ energy companies
- Present financial situation

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Barriers for RES/EE

Renewable energy
- Prices for alternatives
- Awareness/information
- Feed in tariffs
- Grid connections
- Investments
- Development
- Costs do not reflect “costs”
- Supply orientation on large scale units - conservatism
- Small projects/high transactions costs
- Decentral / local plants

Energy Efficiency
- Awareness/information
- Buildings: long pay back
- Industry: lack of high level interest
- Small projects/high transaction costs
- Regulation could be stricter
- Real incentives to save? Behavior?
- Transport sector unpopular to touch
- Small projects/high transaction costs

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Security of supply

Security: Energy production/TPES %
2006

Source: IEA

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ENERGY COOPERATION BETWEEN THE EU, THE LITTORAL STATES OF THE BLACK & CASPIAN SEAS AND THEIR NEIGHBOURING COUNTRIES
Renewable energy penetration

Sustainable: Renewable/Total final energy consumption %
2006

Source: IEA

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Energy Efficiency indicators


2006

Source: IEA

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Negajoules

Development of the primary energy demand and of “negajoules”
("negajoules": energy savings calculated on the basis of 1971 energy intensity)

Source: Enerdata 2006
Relative energy intensity (WEC)

Figure 2.2: Primary energy intensity by world region (2006)
(intensité énergétique primaire par région du monde)

Source: ENERDATA

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SEMISE Methodology

3 components:

1: Market convergence
2: Investment facilitation
3: Implementation of sustainable energy policies

- Position / strategy papers / training needs assessment
- High level local seminars / study tours / regional training courses
- Ad hoc facility/Investment project preparation facility establishment
- Continuous assistance on request on regulation, investments facilitation, project development, studies, analysis, training, capacity building

Starting Date: 19 January 2009
Three years duration
## SEMISE time schedule

<table>
<thead>
<tr>
<th>Inception</th>
<th>Review of situation</th>
<th>Consultations with members</th>
<th>Position papers</th>
<th>Visit to partner countries</th>
<th>Planning Ad hoc/IPPF</th>
<th>Operating Ad hoc/IPPF</th>
<th>Training/capacity building</th>
<th>Specific assistance</th>
<th>Inogate events 2009</th>
<th>Local seminars on regulation</th>
<th>Regional training Convergence</th>
<th>Local seminar Sustainable</th>
<th>Regional training Sustainable</th>
<th>Local seminars Investment</th>
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<tr>
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- X: Scheduled
- Ω: Engaged

### Inogate events 2009

- Local seminars on regulation
- Regional training Convergence
- Local seminar Sustainable
- Regional training Sustainable
- Local seminars Investment

### ITS
- ERRA, WB, IEA, ECT, EBRD

- SKPI (Kyoto protocol)
  - X: Scheduled

- Centr. Asia RES best practices
  - X

- Centr. Asia EE best practices
  - X

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ENERGY COOPERATION BETWEEN THE EU, THE LITTORAL STATES OF THE BLACK & CASPIAN SEAS AND THEIR NEIGHBOURING COUNTRIES
Project Team

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