

ENERGY EFFICIENCY CENTRE GEORGIA

Climate Technology and Energy Efficiency The Engine for Economic
Growth and Innovation

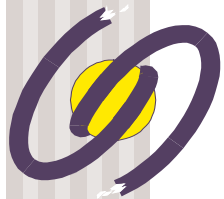
Climate Technology and Energy Efficiency The Engine for Georgian Energy and Economic Security

By: GEORGE ABULASHVILI

ENERGY EFFICIENCY CENTRE GEORGIA

21-25 October
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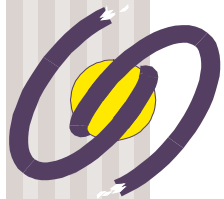
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Self Sufficiency Energy Production / TPES

Self Sufficiency	2000	2001	2004
Country TPES (1000 toe)	3401	2594	2559
Indigenous Production	1325	1265	1325
Import	2147	1460	1307
Indigenous Production / TPES	0.39	0.49	0.52

**While the same indicator average for the:
the World -1.01; OECD - 0.72; Asia - 0.88;
Africa 1.68; Latin America – 1.38; CIS - 1.45.**

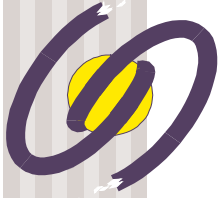




TPES Pattern

	<i>2000</i>	<i>2001</i>	<i>2004</i>
Country TPES (1000 toe)	3401	2594	2559
Electricity	658	619	663
Oil	1260	615	593
Natural Gas	953	812	679
Electricity / TPES	0.19	0.24	0.26
Oil / TPES	0.37	0.24	0.23
NG / TPES	0.28	0.31	0.27
(NG + Oil + El) / TPES	0.84	0.79	0.76

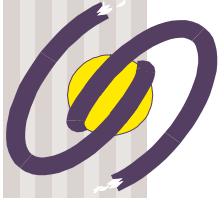




Energy Indicators

	Georgia	The World	OECD
TPES (toe) / GDP Thous.\$ 95	0.65	0.29	0.19
El.Consum(toe) / GDP Thous.\$ 95	1.65	0.42	0.32
Oil Supply (toe) / GDP Thous.\$ 95	0.34	0.10	0.08



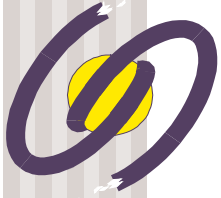


High Level of GG emission per unit of GDP

CO2/GDP (kg/\$ 95)	1995	2000	2001	2004
Georgia	1.36	n/a	1.44	1.45

While the same indicator average for: the world - 0.65 (kg/\$); OECD 0.45 (kg/\$); Asia 1.23 (kg/\$); Africa 1.18 (kg/\$); Latin America 0.52(kg/\$); for CIS 4.25(kg/\$).

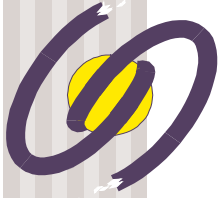




Country EE Potential

- **the economical potential for energy savings is estimated in the range of 30-50%;**
- **cost of used energy for big industrial units exceeds 50% of the cost of final products;**
- **usually it varies from 15 to 25%.**

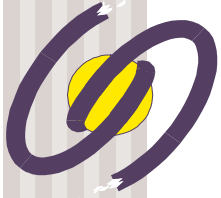




Effect of EE Measures

	Now	After EE Measures
Country TPES (1000 toe)	2559	2303
Indigenous Production	1325	1325
Import	1307	1051
Indigenous Production/ TPES	0.52	0.58

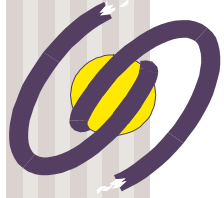




Effect of EE Measures

	Now	After EE Measures
Energy Intensity		
TPES (toe) / GDP Thous.\$ 95	0.65	0.58
El.Consum(toe) / GDP Thous.\$ 95	1.65	1.04
Oil Supply (toe) / GDP Thous.\$ 95	0.34	0.30

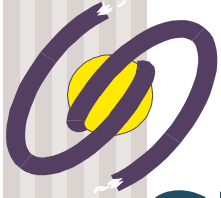




Legal Background

- **Georgia ratified UNFCCC on 29 October 1994 and has accessed to the Kyoto Protocol on 16 June 1999**
- **Of the three mechanisms defined by the Kyoto Protocol, Georgia, as a Non Annex I country can participate only in CDM**
- **Georgia satisfies CDM participation requirements:**
 - **Georgia participate voluntary in CDM;**
 - **Georgia has nominated CDM “Designated National Authority” (DNA)**
 - **Georgia is a Party to the Kyoto Protocol**





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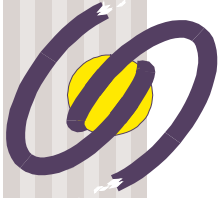
CDM DNA

By the Decree of the Government of Georgia dated 20 January 2005 the Ministry of Environment Protection and Natural Resources of Georgia was appointed as CDM DNA.

Main tasks of DNA is to confirm that:

- **Georgia participates voluntary in CDM and in the Project;**
 - **CDM project will assist Georgia in achieving sustainable development;**
 - **CDM Project has been in compliance with national environmental regulations;**
 - **Stakeholders opinions have been considered and followed.**
-





Functions of DNA

The mandatory regulatory functions:

- **Evaluation and approval of submitted CDM Project.** This function is a prerequisite for the project validation and certification process and is to be performed in order to comply with international regulations.
- **Annual reporting of activities to the Secretariat of UNFCCC**

Promotional functions (optional):

- **Facilitate communication between investors and project proponents;**
- **Facilitate capacity building for the CDM stakeholders;**
- **Provide information to support the marketing CERs.**

These optional functions have not been under international regulation.





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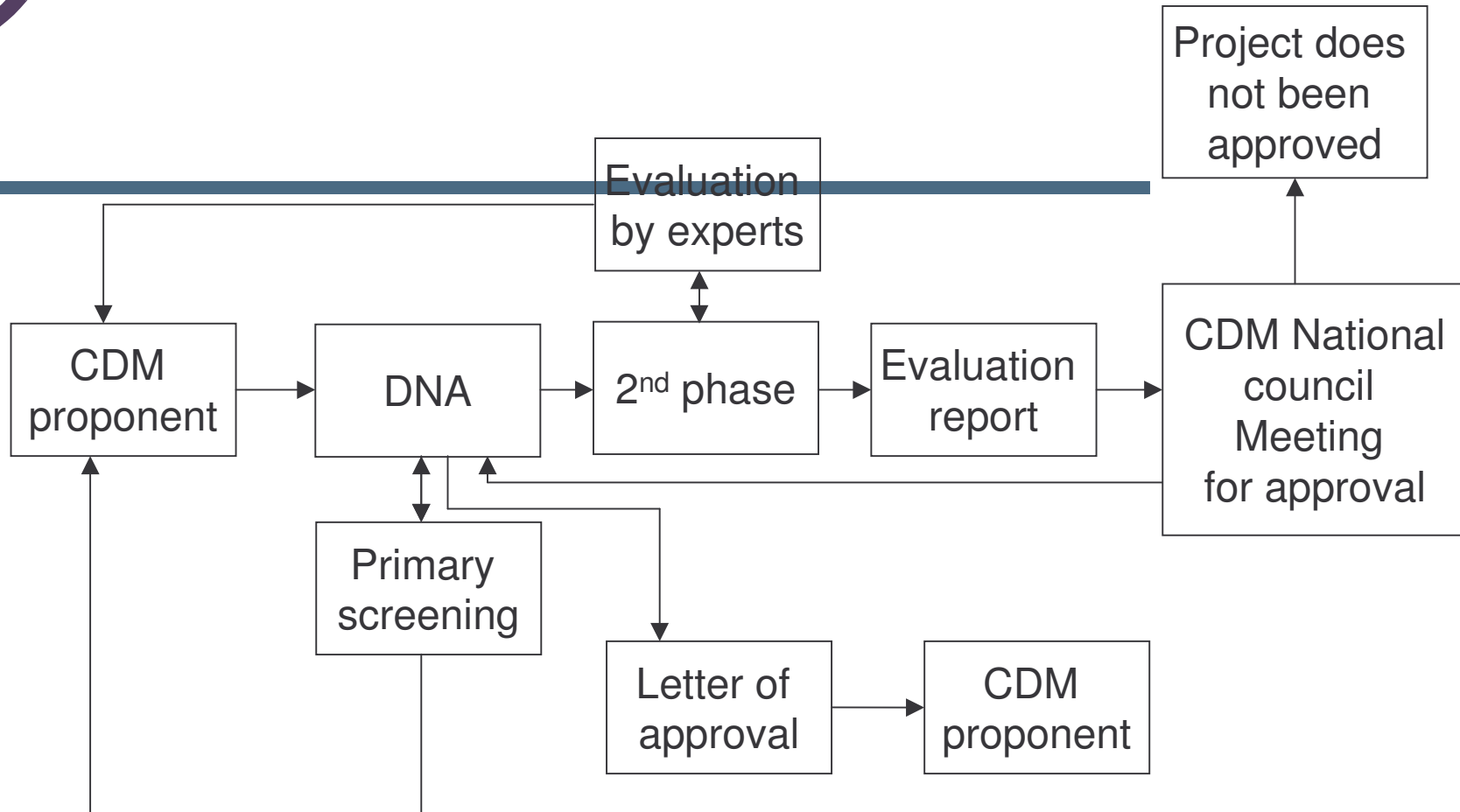
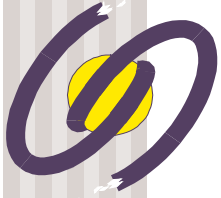
CDM National Council

As the scope of CDM Projects is wide, evolving practically all basic sectors of economy, the Government of Georgia has decided to create an entity consisting of representatives of the key Ministries related with the CDM.

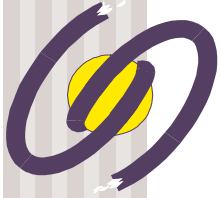
By the Decree of the Government of Georgia (dated 28 September 2005) CDM National Council of Georgia was formed.

The main task of the CDM National Council is to determine according to the criteria, established for the CDM projects, whether the proposed project contributes to SD of the country and to advise DNA issue letter of approval on behalf of the Government of Georgia.





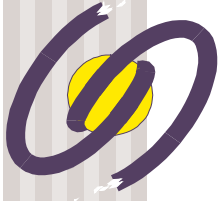
CDM Project Approval Process



Aspects to be considered:

- **Social well being:** The CDM project activity should lead to alleviation of poverty by generating additional employment, removal of social disparities and contribution to provision of basic amenities to people leading to improvement in quality of life of people.
- **Economic well being:** The CDM project activity should bring in additional investment consistent with the needs of the people.
- **Environmental well being:** This should include a discussion of impact of the project activity on resource sustainability and resource degradation, if any, due to proposed activity; biodiversity friendliness; impact on human health; reduction of levels of pollution in general etc.
- **Technological well being:** The CDM project activity should lead to transfer of environmentally safe and sound technologies with a priority to the RE sector or energy efficiency projects that are comparable to best practices in order to assist in upgradation of technological base.





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THANK YOU

