

# Sustainable Energy

## Project Objective:

The objective of the Guidance materials on Sustainable Energy (the guidelines) is:

- o to encourage and help supreme audit institutions to carry out audits concerning sustainable energy;
- o to provide different ways of audit approaches in this up-to-date topic

## Project Scope:

Suggested structure of the project “Sustainable Energy”

### Introduction

The project called Sustainable Energy is one of the main topics in the framework of the INTOSAI WGEA 2008 – 2010 Work Plan. It is a part of the Goal 1: Expand the guidance materials to SAIs with a narrow link to other work projects, in particular projects concerning climate changes or management of natural resources.

The topic of sustainable energy is very important in the context of long-term trends such as still increasing absolute energy consumption, limited resources for energy generation and existing political dependence of individual countries on owners of the resources, negative impacts of methods of energy generation on the environment etc. This topic also belongs to the main goals of the United Nations Environment Programme thanks to the connection to the problems of sustainable development.

Energy generation and its negative impacts are also subjects of many international agreements, e.g. Convention on Long-range Transboundary Air Pollution and its Protocols.

## Chapter 1: Energy generation and grid network

Sustainable development and sustainable energy – WSSD goals, commitment to the Plan of Implementation (i.e. developing and disseminating alternative energy technologies, developing and promoting efficient use of sources of energy, establishing domestic programs for energy efficiency, strengthening national and regional energy institutions or arrangements, promoting cross-border energy trade, including the interconnection of electricity grids)

### Subchapters:

#### 1. Trends in energy generation

Basic overview on various types of energy generation and its influences on the environment, from the sustainable development point of view in particular (with specific aspects of individual continents, or with respect to the difference between developed and developing economies) – conventional energy resources, nuclear energy, renewable and non-traditional energy resources (hydroelectric power stations, wind power plants, barrier-layer photocells, heat pumps, biomass, thermo collectors etc.) with a specification of shares of individual energy generation, national and regional specifications. (i.e. 1.1. conventional resources; 1.2. renewable resources; 1.3. grid network; 1.4. energy generated and supply);

#### 2. Support schemes operating at a regional, national level

The existence of state energy conceptions or policy measures, particularly with respect to developing sustainable energy and to energy production in the short- or long-term perspective with the connection to international liabilities, or other policies (e.g. environment protection, subventions etc.) and risks arisen from these policies; the existence of appropriate legal environment (EIA assessments, antimonopoly laws etc.); adoption of target programmes with a support of renewable resources (state subsidies), set of measurable indicators for the

programmes assessment, support of research and development, various educative programmes;

### **3. Economic, social and environmental consequences of energy policies**

Feasibility of substantial reductions in carbon emissions, electricity market, adoption of other economical instruments (green energy prices, tax relief on bio-fuel or bio-ethanol, various fees incl. sanction charges, ecological taxes etc.), the cost of renewables, etc. with respect to macro economic, social consequences of the policies, and to those consequences in country of origin producing energy

## **Chapter 2: Energy savings and efficiency**

### **Subchapters:**

#### **1. Energy consumption (heating, electricity, transport)**

Main factors influencing electricity use and fossil fuel use. Implemented transport strategies for SD, reflecting specific regional, national and local conditions.

#### **2. Energy savings**

Basic overview on particular forms of energy savings, its effectiveness and accessibility (dissimilarities among the continents); trends in energy savings based on sustainable development; energy calculations; ecological effects.

#### **3. Energy efficiency instruments**

The existence of specific programmes in state conceptions or policies contributing to energy savings – (electric power, heat energy, mobile sources, buildings heat cladding etc.) with connection to individual branches, economic instruments (incl. financial subsidies), research and development, new economic technologies and its accessibility, best available techniques (BAT); investments related to energy generation (governmental encouragement); the role of technology used.

## **Chapter 3: Audit approaches and feasibility of the audits**

### **Step 1: Decision on audit objectives, audit questions and audit criteria**

Assessment of data dealing with generation and supply of electricity, heating and energy generated from transport – funds allocated, disbursement of funds etc.

### **Step 2: Compliance with agreements, laws and policies**

SAI's mandate to carry out audits, international obligations, implementation of international conventions to national policies, potential conflicts between national policies and international conventions etc.

### **Step 3: Risk analysis**

Identification of trends, risks and barriers in all the audit stages – using risk-based approach

### **Step 4: Performance measurements and results**

Assessment of the performance of governments' actions, development of indicators and measures and their monitoring, reliability of data used, adequacy and efficiency of management system and achievement of the objectives intended versus real results of policies and programs, general impact of programs etc.

### **Step 5: Monitoring**

Possible topics for parallel or coordinated audits, possibilities of their realization, case studies etc.

### **Step 6: Reporting to the public**

Examples of the audits performed, reporting based on legal requirements, information given to the public, compliance of the reports with appropriate standards, rules and regulations, public education on energy savings etc.

### **Annexes**

- annotation with an assessment of questionnaires
- Structured overview of energy audits
- Templates – feasibility study, audit plan
- FAQ
- List of international agreements and conventions
- List of used literature
- Explanatory notes
- List of abbreviations

### **Planned Methodology and Participants:**

As a result of this project a Guidance Material on Auditing Sustainable Energy will be published.

The guidelines will be based on the audits executed, published on the INTOSAI WGEA website and conducted by the project partners.

The guidelines will be also based on the data collected from the questionnaire, which will be sent to all INOTOSAI members.

If necessary, there is a possibility to invite external experts.

Workshops and working sessions will be planned operatively.

Sub-committees of the project:

SAI Australia, SAI Brazil, SAI China, SAI India, SAI Kuwait, SAI Morocco, SAI Norway, SAI Poland, NAO UK, SAI Vietnam, SAI Zimbabwe.

For detailed information - see enclosure 1

The team leader is the SAO of Czech Republic. The sub-committees will provide the support based on information and experience, possibly will provide SAO with draft of agreed chapters.

### **Communication:**

Communication will be based on e-mails, in case of necessity there will be organized a meeting.

### **Possible Final Output:**

A publication/guidelines (in English), CDs, WGEA website, SAO CZ website, database of national final reports.

### **Contacts:**

Czech Republic – leader of the project

Ms Regina Charyparova, +420 233 045 695, [regina.charyparova@nku.cz](mailto:regina.charyparova@nku.cz)

Ms Michaela Rosecka, +420 233 045 654, [michaela.rosecka@nku.cz](mailto:michaela.rosecka@nku.cz)  
 Ms Barbora Zochova, +420 233 045 332, [barbora.zochova@nku.cz](mailto:barbora.zochova@nku.cz)

Estonia – WGEA Secretariat

Mr Henn Pärnamets, +372 640 0756, [henn.parnamets@riigikontroll.ee](mailto:henn.parnamets@riigikontroll.ee)

## Timeline and Key Milestones:

Stage	Action	Date
1	Preparation of Draft of Project Plan, including comments from sub-committees	12 Mar 2008
2	Final Draft of Project Plan to Estonian Secretariat	26 Mar 2008
3	Receive comments from Steering Committee	Apr 2008
4	<b>7<sup>th</sup> Steering Committee meeting, Tallinn, Estonia, review and approve Project Plan</b>	6-9 May 2008
5	Final version of the Project Plan	30 May 2008
6	Questionnaire draft covering all chapters and subchapters of the planned publication (done by the SAO, CR)	31 July 2008
7	Questionnaire to be sent to the cooperating SAIs for comments/missing ideas ...	1 August 2008 (their deadline for response by 31.08.2008)
8	Final version of the questionnaire (done by the SAO, CR)	30 September 2008
9	Final version to be sent to the cooperating SAIs for final comments	1 October 2008 (deadline for response by 15.10.2008)
10	Questionnaire to be sent to all INTOSAI SAIs (done by the SAO, CR)	16 October 2008 (deadline for response by 31.01.2009)
11	<b>12<sup>th</sup> WGEA, Doha, Qatar</b>	January 2009
12	Questionnaires to be processed by the SAO, CR, results to be published	30 June 2009
13	Draft of the publication to be sent to cooperating SAIs for comments	1 July 2009 (deadline for response by 31.08.2009)
14	Draft to be completed (by the SAO, CR) and sent to the Secretariat	
15	Draft of the Project to the Secretariat	October 2009
16	<b>8<sup>th</sup> Steering Committee meeting, review and approve the draft of the Project</b>	December 2009
17	Final draft of the Project to the secretariat	April 2010
18	<b>13<sup>th</sup> WGEA meeting</b>	June 2010
19	Final version of the Project – translation, editing, printing etc.	September 2010
20	<b>INCOSAI XX</b>	15-20 November 2010

## Sustainable Energy Project - Participant SAIs

Country	Contact Name(s)	E-mail(s)	Phone numbers
Czech Republic – leader of the project	Ms Regina Charyparova Ms Michaela Rosecka Ms Barbora Zochova	<a href="mailto:regina.charyparova@nku.cz">regina.charyparova@nku.cz</a> <a href="mailto:michaela.rosecka@nku.cz">michaela.rosecka@nku.cz</a> <a href="mailto:barbora.zochova@nku.cz">barbora.zochova@nku.cz</a>	+420 233 045 695 +420 233 045 654 +420 233 045 332
Estonia – WGEA secretariat	Mr Henn Parnaments	<a href="mailto:Henn.Parnamets@riigikontroll.ee">Henn.Parnamets@riigikontroll.ee</a>	
<b>Cooperating SAIs</b>			
Australia	Christina Bagot	<a href="mailto:christina.bagot@anao.gov.au">christina.bagot@anao.gov.au</a>	
Brazil	Mr Ismar Barbosa Cruz	<a href="mailto:ismarbc@tcu.gov.br">ismarbc@tcu.gov.br</a>	
China	Ms ZHOU Xun Mr LUO Quan	<a href="mailto:cnao@audit.gov.cn">cnao@audit.gov.cn</a> <a href="mailto:luoquan@audit.gov.cn">luoquan@audit.gov.cn</a>	
India	Ms Sowbhagya Lakshmi Akundi	<a href="mailto:akundi@hotmail.com">akundi@hotmail.com</a>	
Kuwait	Mr Abdul Salaam H. Shuaib	<a href="mailto:training@sabq8.org">training@sabq8.org</a>	
Morocco	Mr Mohammed Diyer	<a href="mailto:diyermed@yahoo.fr">diyermed@yahoo.fr</a>	
Norway	Ms Sissel Iversen Ms Anne Fikkan Mr Helge Strand Osttveiten	<a href="mailto:sissel.iversen@riksrevisjonen.no">sissel.iversen@riksrevisjonen.no</a> <a href="mailto:anne.fikkan@riksrevisjonen.no">anne.fikkan@riksrevisjonen.no</a> <a href="mailto:helge-strand.osttveiten@riksrevisjonen.no">helge-strand.osttveiten@riksrevisjonen.no</a>	
Poland	Ms Ewa Borkowska-Domańska	<a href="mailto:ewbor@nik.gov.pl">ewbor@nik.gov.pl</a>	
UK	Mr Joe Cavanagh Mr Thomas Mirfield Ms Nicola Thomas	<a href="mailto:joe.cavanagh@nao.gsi.gov.uk">joe.cavanagh@nao.gsi.gov.uk</a> <a href="mailto:Thomas.Mirfield@nao.gsi.gov.uk">Thomas.Mirfield@nao.gsi.gov.uk</a> <a href="mailto:Nicola.THOMAS@nao.gsi.gov.uk">Nicola.THOMAS@nao.gsi.gov.uk</a>	
Vietnam	Ms Ha Thi My Dung	<a href="mailto:vietnamsai@hn.vnn.vn">vietnamsai@hn.vnn.vn</a> <a href="mailto:halemydung@yahoo.com">halemydung@yahoo.com</a>	
Zimbabwe	Mrs Mildred Chiri Mr Davy Sethekelo Zibi Moyodsz Moyo	<a href="mailto:chiri@auditgen.gov.zw">chiri@auditgen.gov.zw</a> <a href="mailto:dszmoyo@auditgen.gov.zw">dszmoyo@auditgen.gov.zw</a>	
<b>Regional contact points</b>			
Cameroon	Mr Alfred Enoch	<a href="mailto:alfred_en@yahoo.com">alfred_en@yahoo.com</a>	
China	Mr ZHOU Weipei	<a href="mailto:zhouwp119@yahoo.com.cn">zhouwp119@yahoo.com.cn</a>	
Egypt	Mrs Hanaa Hussein Hassan	<a href="mailto:caoirc@yahoo.com">caoirc@yahoo.com</a>	
New Zealand	Mr Jonathan Keate	<a href="mailto:jonathan.keate@oag.govt.nz">jonathan.keate@oag.govt.nz</a>	
Poland	Ms Ewa Borkowska-Domańska	<a href="mailto:ewbor@nik.gov.pl">ewbor@nik.gov.pl</a>	
South Africa	Mr Wessel Pretorius	<a href="mailto:wesselp@agsa.co.za">wesselp@agsa.co.za</a>	