



## **Industrial Development Board**

### **Fortieth session**

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Agenda item 7 of the provisional agenda

### **UNIDO activities in environment and energy**

## **UNIDO activities related to energy**

### **Report by the Director-General**

In compliance with resolution GC.14/Res.4, the present document provides information on progress achieved in implementing the resolution, thereby reporting on UNIDO activities in the area of energy. The document updates the information included in the report by the Director-General presented to the fourteenth session of the General Conference (GC.14/8) and complements chapter 5 of the *Annual Report of UNIDO 2011* (IDB.40/2).

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## I. Introduction

1. UNIDO has undertaken a wide range of activities in the field of energy. More than ever before, it has been realized that energy powers human progress, from job generation to economic competitiveness, from strengthening security to empowering women; energy is the great integrator: it cuts across all sectors and lies at the heart of all countries' core interests. As the United Nations Secretary-General Ban Ki-moon said on several occasions "sustainable energy is the golden thread that connects economic growth, social equity, and a climate and environment that enables the world to thrive".

2. In 2012, the United Nations Conference on Sustainable Development (Rio+20) was one of the most significant global events. UNIDO participated, among others, in the development of two major initiatives: the Sustainable Energy for All (SE4ALL) and the Green Industry Initiative. Together with its UN-Energy partners, UNIDO was instrumental in ensuring that the three objectives of Sustainable Energy for All, to be achieved by 2030: ensuring universal access to modern energy services; doubling the global rate of improvement in energy efficiency; and doubling the share of renewable energy in the global energy mix, were incorporated in the outcome document at Rio+20.

3. Keeping in mind the global trends and in line with its mandate, UNIDO activities related to energy covered a range of issues and areas including industrial energy efficiency, renewable energy, low-carbon technologies and global forums.

## II. Industrial energy efficiency

4. UNIDO takes a comprehensive, yet focused approach in overcoming the barriers to the continuous improvement of industrial energy efficiency. The Organization's policy support and capacity-building services are geared towards market transformation for industrial energy efficiency. Following the approval by the Global Environment Facility (GEF) of six projects in the amount of \$27 million in 2012, the current ongoing project portfolio amounts to \$120 million, with a wide geographical coverage across several regions and countries, including Burkina Faso, China, Ecuador, Egypt, India, Indonesia, Iran (Islamic Republic of), Malaysia, Philippines, Republic of Moldova, Russian Federation, South Africa, Thailand, Turkey, Ukraine, Viet Nam and Zambia.

5. Energy management standards have an important role to play in industry, but are equally applicable in commercial and government operations. After the successful launch of the ISO 50001 energy management standard, UNIDO has focused its technical assistance projects and programmes in the field of industrial energy efficiency on providing support for the adoption of ISO 50001 in industry and on the related capacity-building for industrial users and national certification agencies. Since the beginning of this year, UNIDO has been preparing several training manuals on energy management systems (EnMS) that are widely used to support capacity-building and training activities at the country level.

6. As reported in the *Annual Report of UNIDO 2011* (IDB.40/2), the International Centre for Hydrogen Energy Technologies (ICHET) further strengthened the dissemination of hydrogen technology with the inauguration of a hydrogen facility

using renewable energies on the island of Bozcaada, Turkey. ICHET is also planning to open the first hydrogen production and re-fuelling facility in Turkey by the end of 2012.

7. UNIDO is working closely with the Global Green Growth Institute (GGGI) and the Global Green Growth Forum (3GF), the International Partnership for Energy Efficiency Cooperation (IPEEC), and the International Energy Agency (IEA) as well as private sector partners, on building a public-private partnership (PPP) to develop and promote best-available and best-practice energy efficiency indicators for motor-driven systems across industry sectors and processes. The partnership will support industrial energy efficiency policymaking and an integrated approach to the implementation of ISO 50001.

### **III. Renewable energy**

8. The overall objective of the Organization's activities in the field of renewable energy is to enable developing countries and economies in transition to embark on a green growth pathway by increasing the availability and use of renewable energy, particularly for productive uses. The UNIDO renewable energy portfolio, which covers over 40 countries and stands at \$62 million, includes renewable energy technologies such as solar, wind, small hydro and various biomass and biogas applications. UNIDO renewable energy activities adopt a strategic participatory approach focusing on responding to Member States' priorities and needs while engaging with a full range of stakeholders, including the private sector.

9. To realize this goal UNIDO will pursue, among others, three strategic interventions: (a) support the deployment of renewable energy for productive uses; (b) promote low-carbon patterns of energy use in industrial applications of small and medium-sized enterprises through renewable energy; and (c) strengthen local technical capacity for production and use of renewable energy technologies (RETs), and foster energy enterprises and innovative business models for scaling up and leverage investments in renewable energy. This threefold approach will be outlined in the UNIDO renewable energy strategy. The draft strategy presently is undergoing a peer review and will be finalized by the end of 2012.

10. Under the trust fund on renewable energy for productive activities, which was set up in line with decision GC.13/Dec.15, programmatic approaches and partnerships have been promoted through concrete renewable energy projects focusing on technology demonstration, policy frameworks and capacity-building with measurable results and impacts on the ground (document IDB.40/7). In 2012, eight projects amounting to \$29 million have been approved so far by GEF, thus increasing the total project portfolio for renewable energy to more than \$90 million.

### **IV. Rio+20 Conference**

11. During the Rio+20 Conference, UNIDO successfully organized a side event on "Decentralized Renewable Energy: Creating Clusters of Sustainable Development" in cooperation with national counterparts in Brazil, such as the Ministry of Mines and Energy of Brazil, the São Paulo Industries Federation (FIESP), the Brazilian electric utilities company — Eletrobras, and the Brazilian oil and gas company —

Petrobras. The event attracted around 150 participants from governments, international organizations, the private sector, utility companies, academia and non-governmental organizations. This high-level event provided insights into key challenges facing the deployment of renewable energies as well as the potentials of sustainable energy solutions in contributing to employment creation and poverty alleviation. It showcased insights and practical examples from expert fields of various stakeholders.

## **V. Sustainable Energy for All (SE4ALL) Initiative**

12. 2012 has been declared the International Year for Sustainable Energy for All. During Rio+20, the Sustainable Energy for All (SE4ALL) Initiative strengthened partnerships and mobilized billions of dollars in commitments and practical actions that were presented at a high-level event. Given the global developmental and environmental challenges, Rio+20 offered a unique opportunity to scale up practical solutions for the world to be well on its way by 2030 to achieve sustainable growth and establish sustainable energy systems, allowing developing countries — many of them growing rapidly and at large scale — to leapfrog conventional energy options and move directly to cleaner energy alternatives that will enhance economic and social development.

13. Over 60 countries from Africa, Asia, Latin America and the Caribbean, as well as the small island developing states (SIDS) have already committed to support the SE4ALL Initiative and are developing concrete national energy plans and programmes. Most of them developing countries, they initiated or completed energy sector assessments and gap analyses, thus laying the groundwork to scale up action in priority areas, undertake strategic reforms where needed, and attract new investments and financial support.

14. Businesses and investors have committed over \$50 billion to achieve the initiative's three objectives. Billions of dollars have been committed by other key stakeholders, such as governments, multilateral development banks, and international and civil society organizations, to catalyse action in support of the Initiative. At Rio+20 more than \$500 billion were mobilized with over 700 commitments made, most of them in the field of sustainable energy.

## **VI. Global forums**

15. The ECOWAS High-Level Forum on “Paving the Way for Sustainable Energy for All in West Africa”, to be held in Accra from 29 to 31 October 2012, will give UNIDO an opportunity to mobilize support for definitive actions to increase energy access in West Africa. The Forum will aim at establishing a framework for implementing SE4ALL in the ECOWAS region, and offer a crucial opportunity for policymakers and other high-level actors to collaborate on ECOWAS policies for both renewable energy and energy efficiency.

16. UNIDO will be hosting key events during the Global South-South Development Expo 2012 organized in Vienna from 20 to 22 November 2012, with a thematic focus on energy and climate change issues. The Expo will allow participants to benefit from UNIDO's long standing expertise in the field of energy

and environment. The Expo will furthermore complement other major events and activities, such as Rio+20 and the Sustainable Energy for All Initiative, for which UNIDO has been a strong partner.

## **VII. Action required by the Board**

17. The Board may wish to take note of the information provided in the present document.

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