Connecting Sustainable Energy Businesses with Education - Getting the Workforce You Need -

FEBRUARY 25, 2021
7:00 - 9:00 A.M. (EST)
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Overview

The clean energy transition is creating new job opportunities around the world. With the rapid expansion of renewables and energy efficiency, along with technology disruptions, the needed skill sets of tomorrow’s workforce are going to be significantly different. How can the private sector connect with educational and training institutions to prepare the workforce for clean energy and the green economy?

This webinar aimed at helping employers and educators connect to prepare the workforce for the green economy. The intended audience was businesses and organizations in the green economy and clean energy sectors, higher education institutions, and workforce developers.

This webinar provided two opportunities: for private sector employers to share what businesses need in their new hires; and for employers and educators to streamline communications about curricula and recruitment. The event also discussed the policies, processes, and incentive mechanisms (within the private sector, education, and the labor market) required to support the development of the green workforce.

The webinar was organized by the UNEP Education team, affiliated with GO4SDGs, and World Bank’s MENA Energy team under the “Disruptive Clean Energy Transition and Employment Opportunities” activity, funded by Energy Sector Management Assistance Program (ESMAP).
Clean Energy and Jobs: Key Trends

11 mln

Direct jobs created in renewable energy sector worldwide in 2018 (IRENA 2020)

6 mln

Direct jobs in energy efficiency in major economies (US, Europe, Canada, China, Brazil, Australia) in 2019 (IEA 2020, Energy Efficiency 2020)

4 mln

Jobs in the sustainable, nuclear, and storage energy sectors in the US in 2019. Energy efficiency jobs are the largest segment of clean energy jobs in the US (2.3 million jobs), while natural gas supported roughly 398,000 jobs and solar 345,000 jobs. (US Energy and Employment Report, NASEO & EFI 2020)

COVID-19 Impact on the US Jobs in the Clean Energy Sector

In 2020, the clean energy sector finished the year with the fewest number of workers since 2015. 12% of the US clean energy workforce remained unemployed by year’s end, making 2020 the first year that clean energy employment saw a decline. 70% of the jobs in the clean energy sector had yet to be recovered by year end. At the rate of recovery over the last six months of 2020, the clean energy sector would not reach pre-COVID employment levels for another 2.5 years (US Energy and Employment Report, NASEO & EFI 2020).

Webinar Highlights

- Takeaways from REN21 and Solar Sister Presentations -

Renewable-based energy access provides direct and indirect employment. Distributed renewables for energy access create jobs related to the productive use of energy in the developing world.

The private sector and the government should not overlook the capacity development of underserved communities. Focus on education, skill development and on-the-job training, provide incentives for both employment and entrepreneurship.

Promoting inclusiveness in the workplace to retain young talent in clean energy is fundamental. Recognizing and empowering women in the energy sector is not just the right thing to do but the smart thing to do.
Knowledge can be acquired. Skills can be developed. Abilities can be sharpened.

Results of the 2020 Member Survey of the US Business Council for Sustainable Energy

Top current workforce development activities:
- Apprenticeship or training programs
- Educational partnerships

Top federal government workforce-related programs utilized:
- Military veterans and
- Department of Labor Apprenticeship program

Top areas for additional federal government support:
- Educational partnerships
- Training for underrepresented groups

Barriers to workforce development include:
- Limited staff and financial resources
- Internal awareness, adoption, and employee involvement
- Lack of training tied to real projects
- Lack of qualified and diverse labor pools. Geographic limitations
- Challenge to perform day-to-day job and train for future job
- Pandemic cut off pipeline, need for more virtual/online opportunities
- Finding qualified individuals and diverse candidates

Among opportunities for workforce development are:
- Advocacy that highlights well-paying clean energy jobs and career paths, especially to displaced and underrepresented communities
- Knowledge sharing among industries: benchmarking and best practices of companies
- More virtual trainings and learning opportunities, industry-specific
- Education programs for children and students
- Encourage STEM and technical fields
- 6-12th grade programs that introduce energy and energy careers
- Targeted outreach to expand inclusion and diversity of students
Women empowerment is crucial for MENA clean energy transition. Organizations are in the process of incorporating female talent but need to maintain and enhance these efforts to tap into the full potential region.

**Results of the 2019 Survey of the MENA Clean Energy Business Council**

Respondents highlighted the following workforce skills importance and existing gaps:

- **Executive skills** are the most important to reach their career goals
- **Technical skills** more closely related to formal education were ranked as essential for some roles, while almost insignificant for others.
- **Social skills and administrative skills** are ranked as less important to individuals in achieving their career goals.

**Key Takeaways from the Survey**

- The MENA region is undergoing a transition that could entail important demographic dividends as a larger proportion of the population reaches a productive age. Besides young talent, female talent can be attracted and retained more effectively in the clean energy sector.
- Institutional leadership remains key to harness this young labor force through the clean energy ecosystem. Policy needs to be comprehensive, coordinated, and time-consistent to send clear signals to all sectors, create safe and attractive environments for infrastructure development, and improve the skills of the labor force.
- Individuals need more options to improve readiness through their careers and jobs. Capacity development needs to address both formal education and on-the-job training. Altogether, these measures could help prepare governments, organizations, and people for the challenges of the future.
- Measures to tackle the gaps in education and R&D need to be gender-sensitive to capture female talent.
Discussion Takeaways

- Despite the myth that the energy sector needs only engineers, the energy workforce needs people with various educational backgrounds and thus can be very inclusive.

- There are many competencies that cut across engineering, law, business, and other disciplines. Network development between disciplines will enable interdisciplinary coordination that is crucial for the clean energy transition.

- The majority of renewable energy jobs require more than a high-school education but less than a four-year degree. It provides opportunities for people who would like to be technicians in this field.

- One of the challenges is the uptake of renewable energy educational programs. Students are still attracted to conventional market-driven programs. For example, students prefer doing studies in electrical engineering with some renewable energy courses rather than specializing in a niche program that is exclusively focused on renewables.

- Cooperation between various stakeholders is key. From the private sector perspective, it is important to build strong partnerships with educational institutions, labor-management organizations, workforce development boards, public entities. The private sector needs to continue defining and making clear what are the credentials and certifications needs, continue collecting data on sector needs, as well as organizing training centers and professional development for educators.

Areas of cooperation between industry, academia, and government include:
- jointly designing course curriculum, providing feedback for existing curriculum, and developing education policy that promotes treating renewable energy as integrated and independent streams of study;
- offering scholarships and fellowships to attract student to programs along with structured internship programs for making students job-ready;
- creating renewable energy labs to facilitate learning by doing;
- sponsor clean energy certificate programs;
- support applied research for evidence-based policymaking;
- build capabilities related to career advising and green jobs placements.
Webinar Stats & Figures

Types of Organizations Represented

- Business: 18%
- Education: 40%
- Government: 7%
- NGO/Civil Society: 15%
- Others: 21%

- 771 registrations
- 375 attendees
- 49 attendance rate, %
- 66 countries
- 71 minutes

Represented during the session
Length of stay on average
Webinar Poll Results

What are the skills and competencies that tend to be missing in the job applicant pool for management and support staff positions?

- Accounting
- Project Financing
- Project Management
- English Language
- Procurement
- Import & Export Logistics

Other: 15

% of respondents, number of respondents is 108

What are the skills and competencies that tend to be missing in the job applicant pool for technical positions?

- System design
- Installation skills
- Trouble shooting/fixing systems
- English Language

Other: 15

% of respondents, number of respondents is 90

Are you having difficulty recruiting from certain backgrounds e.g. women, people with disabilities, minorities or marginalized communities?

- Yes: 65
- No: 35

% of respondents, number of respondents is 82
# Agenda

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<th>Time</th>
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<td>7:00 - 7:10</td>
<td><strong>Opening Remarks</strong></td>
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<td>Mari Nishimura, United Nations Environment Programme</td>
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<td>Master of Ceremonies: Tu Chi Nguyen, The World Bank</td>
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<td>7:10 - 7:50</td>
<td><strong>Panel Discussion of Speakers from Business Associations in the Clean</strong></td>
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<td>Energy and Green Economy Sectors</td>
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<td>Moderator: Erik Fernstrom, The World Bank</td>
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<td>Speakers:</td>
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<td>Thomas André, REN21: Renewables Now</td>
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<td>Lisa Jacobson, Business Council for Sustainable Energy, USA</td>
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<td>Ahmed Samir Elbermbali, Clean Energy Business Council MENA</td>
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<td>Olasimbo Sojinrin, Solar Sister, Nigeria</td>
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<td>7:50 - 8:20</td>
<td><strong>Discussion with Respondents from Higher Education and Workforce</strong></td>
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<td>Development</td>
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<td>Moderator: Debra Rowe, US Partnership for Education for Sustainable Development</td>
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<td>Fawzia Tarannum, TERI School of Advanced Studies, India</td>
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<td>Jean-Christopher Carteron, Kedge Business School, France</td>
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<td>Prem Jain, University of Zambia, Zambia</td>
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<td>Ken Walz, Madison College, CREATE Renewable Energy Center, USA</td>
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<td>Cheryl Desha, Griffith University, Australia</td>
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<td>Ahmed Benlarabi, Research Institute for Solar Energy and New Energies, Morocco</td>
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<td>Hideaki Ohgaki, Kyoto University, Japan</td>
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<td>Andreas Blom, The World Bank</td>
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<td>8:20 - 8:50</td>
<td><strong>Q&amp;A Session with Speakers and Respondents</strong></td>
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<td>8:50 - 9:00</td>
<td><strong>Closing Remarks</strong></td>
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<td>Paul Noumba Um, The World Bank</td>
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Speakers

Thomas André

Lisa Jacobson
President, Business Council for Sustainable Energy

Ahmed Samir Elbermbali
Managing Director, Clean Energy Business Council (CEBC)

Olasimbo Sojinrin
Nigeria Country Director, Solar Sister

Discussants

Fawzia Tarannum
TERI School of Advanced Studies, India

Jean-Christopher Carteron
Director of Corporate Social Responsibility, Kedge Business School

Prem Jain
Professor in Physics and UNESCO Chair in Renewable Energy and Environment, University of Zambia

Kenneth Walz
Director, Center for Renewable Energy Advanced Technological Education (CREATE), Madison Area Technical College, USA

Cheryl Desha
Associate Professor Griffith University, Australia

Ahmed Benlarabi
Responsible for PV Systems at IRESEN, Morocco

Hideaki Ohgaki
Professor of Institute of Advanced Energy, Graduate School of Energy Science, Kyoto University, Japan

Andreas Blom
Practice Manager, The World Bank’s Education Global Practice, Middle East and North Africa
Opening & Closing Remarks

Paul Noumba Um  
Regional Director of Infrastructure MENA, The World Bank

Mari Nishimura  
Programme Officer, United Nations Environment Programme

Master of Ceremonies & Moderators

Tu Chi Nguyen  
Energy Economist, The World Bank’s Energy Global Practice, Middle East and North Africa

Erik Fernstrom  
Practice Manager, The World Bank’s Energy Global Practice, Middle East and North Africa

Debra Rowe  
President, US Partnership for Education for Sustainable Development

Webinar Organizing Team

Ashok Sarkar  
Senior Energy Specialist, The World Bank’s Energy Global Practice, Middle East and North Africa

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Energy Economist, The World Bank’s Energy Global Practice, Middle East and North Africa

Mari Nishimura  
Programme Officer, United Nations Environment Programme

Alona Kazantseva  
Energy Consultant, The World Bank

Yao Zhao  
Energy Consultant, The World Bank

Debra Rowe  
President, US Partnership for Education for Sustainable Development
Webinar Recording & Resources

**Webinar Recording:**
https://1930181.mediaspace.kaltura.com/media/Connecting+Sustainable+Energy+Businesses+with+Education++Getting+the+Workforce+You+Need-Feb+25%2C+2021/1_wwr7xuux

**Resource Document:**
https://docs.google.com/document/d/1hwmyaJPl3reaPqLhI6Pwcm7ngKw8AYEK8uJjesv8w4/edit