Training & Entrepreneurship in the field of energy

A driver of economic and social development
Read the inspiring stories of Yéyé, Gurdeep, Vitor and Pierre, four young students who we followed in their respective countries in the Tomorrow Rising web series.
In a world of increasing and ever more urgent social and environmental challenges, the Schneider Electric Foundation, under the umbrella of the Fondation de France, is turning its attention to education and professional training to bring about global change and to promote a fair society to encourage future generations.

Around the world, today more than ever, Schneider Electric and its Foundation are driven to support projects set up by partners locally to ensure a better future for younger generations shaping the world of tomorrow. We have already supported more than 150 ambitious professional training programs in the electricity sector, providing underprivileged people with more access to energy in emerging countries.

Schneider Electric is committed to training a million young people and 10,000 trainers by 2025. We are also aiming to support projects for 10,000 entrepreneurs. This is our contribution to Sustainable Development Goals 4 and 7.

Faced with the health and economic crisis resulting from the pandemic, the Foundation has stepped up its support for training with the creation of the Tomorrow Rising Fund. The aim is to protect vulnerable and exposed populations and help kickstart the education system, particularly professional training for disadvantaged youth.

By building together and combining all the energy resources in our ecosystem, this sustainable future will become a reality.”

Gilles Vermot Desroches, Sustainable Development Director, Schneider Electric
General Delegate, Schneider Electric Foundation.

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1. The challenges of training and professional development in the field of energy

Professional training: a significant driver contributing to the UN Sustainable Development Goals

The 17 UN Sustainable Development Goals (SDGs) represent a universal call for prosperity and environmental protection. They cover all development challenges in all countries, including climate, biodiversity, energy, poverty, education, peace and gender equality. Schneider Electric believes that access to energy and digital technology are basic human rights and is dedicated to meeting the SDGs in its area of activity. Through its professional training program backed by the Schneider Electric Foundation, the Group is particularly committed to Goal 4: “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.” As the SDGs are interconnected, the inclusion of women in the energy sector and support for professional training contribute to access to affordable and clean energy (Goal 7) and to decent work and economic growth (Goal 8). Professional training is therefore pivotal in numerous topics on the UN 2030 Agenda for Sustainable Development.
In 2019, 840 million people worldwide had no access to electricity (source: Tracking SDG 7: The Energy Progress Report, 2020). With the United Nations Development Program deeming SDG 7 a key initiative for guaranteeing universal access to energy by 2030, the number of jobs created in the energy sector will rise significantly. The decentralized renewable energy (DRE) sector, now widely recognized as essential to rural electrification and universal access to energy, requires a qualified and committed workforce. The report published by Power for All with the support of the Schneider Electric Foundation presents the results of the first annual census of jobs in this sector in India, Nigeria and Kenya. It shows that existing technical solutions can supply electricity to three quarters of people facing energy insecurity but that the sector needs trained workers and entrepreneurs to implement them.

The training and entrepreneurship program is a fantastic opportunity for people to acquire skills, find work or become entrepreneurs in the energy sector. These people can change not only their own lives but also the direction of their communities, making a contribution to the development of their countries by bringing in new energy solutions that are safe, reliable and sustainable.”

Diane Le Goff, Head of the Access to Energy Training & Entrepreneurship Program at Schneider Electric.

The decentralized renewable energy (DRE) sector employs 2 to 4 times more workers in the informal sector.

20,000 companies needed in the DRE sector to achieve SDG 7.

Informal sector

These jobs are characterized by lack of protection against non-payment of salaries, forced overtime, dismissal without notice or compensation, hazardous working conditions and no social benefits, such as pensions, sick leave and health insurance.

Source: International Labour Organization

The need for qualified labor in the renewable energy sector increases every year in emerging countries

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Schneider Electric Foundation's professional training support program

In 2009, Schneider Electric launched an international program to support vocational training in the energy sector. With the backing of the Schneider Electric Foundation and under the umbrella of the Fondation de France, it enables people from disadvantaged backgrounds to access career paths in the field of energy or to create their own business. They thus improve their own living conditions while ensuring their communities have better access to modern and reliable energy supply.

This program is one of the three pillars of the Schneider Electric Access to Energy Program. The other two pillars are:

- Development and sale of products addressing the needs of target populations
- Investment, through a number of investment funds, in start-ups providing access to energy.

Training: in the DNA of Schneider Electric

Schneider Electric is deeply committed to supporting education and technical and vocational training. In 1929, Schneider Electric founded its own school in Grenoble — Schneider Electric School — to address the difficulties of recruiting skilled labor in the energy industry and help young people in vulnerable situations to access promising jobs. This school continues to promote vocational training in the areas of expertise of the company and offers programs linked to the world of business. Students complete qualifications enabling them to continue in higher education or work in positions in innovation-rich energy sector fields like renewable energies, domotics, smart buildings and energy management.
Large-scale projects for local context

For over a decade, the program has enjoyed long-term partnerships with more than 150 local and/or global stakeholders in over 40 different countries. The training programs are developed jointly, pooling the expertise of Schneider Electric and its partners. Programs cover the latest technological developments and are tailored to local job market needs.

3 priorities:

• Promote entrepreneurship
• Support the inclusion of women in energy sector jobs
• Assist with the training of trainers
Committed employees

Employees at Schneider Electric local subsidiaries roll out our projects and contribute to them through both material and financial co-funding, supplemental to the investment of the Schneider Electric Foundation. Through various schemes, we can count on our employees to share their expertise and know-how to design curricula, provide valuable input for trainers, and even run classes:

• VolunteerIn: NGO set up in 2012 to enable current and retired Group employees to take part in volunteer training and education missions.
• Pass Association: opportunity to take on renewable 12-month temporary assignments.

Our goals for 2025:

1 million 10,000 10,000
people trained trainers trained entrepreneurs supported who have gone on to launch their own projects

261,185+ 4946+ 938+
people from disadvantaged backgrounds trained since 2009 trainers trained since 2015 entrepreneurs supported since 2015

Take a look at our Tomorrow Rising web series

The Tomorrow Rising web series tells the story of four students: Gurdeep, Pierre, Vitor and Yéyé. From different countries but linked by the Schneider Electric Foundation training support program, they represent the ambitious young people who are working to build and transform the world of tomorrow. In five episodes, Tomorrow Rising gives us insights into their daily lives.

Yéyé is the narrator, and her goal is to become an engineer within the respected energy sector. We follow her journey from the start of her training in Lagos, Nigeria, to her graduation. She tells the story of her classmates across the world.

Pierre, from Senegal, trained as a teacher and is now striving to improve the future prospects of young people in his country. For Vitor, from Brazil, the training provided by Schneider has been a real springboard for his career in the electricity sector. And finally, in India, we meet Gurdeep, a young and ambitious entrepreneur who fits solar panels and employs young people who have also enjoyed the benefits of Schneider Electric training opportunities like Gurdeep.

Through these inspiring stories, we hope to encourage many others to take these training courses and enhance both their own lives and the everyday conditions in their communities.
2. Promoting the inclusion of women in the energy sector

In emerging economies, women play an essential role in local development and energy management. They take an active business role, particularly in the informal sector, and are the main energy managers in their communities. However, they are not economic players in the associated domains and are missing a number of links in the energy value chain, particularly vocational training programs.

Access to energy is a powerful lever for the inclusion of women. Schneider Electric and its Foundation are working to ensure their inclusion in the energy professions and their full participation in meeting energy and climate challenges.
Beneficiaries: women entrepreneurs, those who want to train in the field of energy

Include women in all links in the energy value chain.

Most programs today only include women in non-technical, nonessential activities, such as selling solar products. Schneider Electric’s Access to Energy Training and Entrepreneurship Program supports local organizations specializing in skills development and the empowerment of women, both of which are critical factors in achieving change. These organizations create inclusive ecosystems offering training, mentoring and funding to enable women to work in the energy sector and become entrepreneurs. Schneider Electric also raises awareness among its local partners, promoting best practices and encouraging a bottom-up approach to gender equality. Through these initiatives, the Access to Energy Training and Entrepreneurship Program seeks to play a dual role, championing economic inclusion and gender equality.

The challenge

Social and economic development and access to sustainable energy for all require specific actions that bring women into the energy sector. The Schneider Electric Foundation works collaboratively to bring together multiple players to create inclusive and sustainable projects.

Success story

MALI, SENEGAL AND NIGER

In Mali, Senegal and Niger, Schneider Electric won the European Union "Women & Sustainable Energy" call for projects, an initiative coordinated by Plan International. The aim is to give women entrepreneurs technical training, primarily in the field of solar power. This program is committed to benefiting 4,650 women-led small and medium enterprises and more than 20,000 women over three years, as well as supporting their economic development.
3. Training

Due to factors including high youth unemployment, school dropout and insufficient provision of local vocational training, a high proportion of young people from underprivileged backgrounds face dreary prospects in emerging and developing countries. Jobs in the electricity sector, instrumental in improving access to energy, offer greatly needed career openings and opportunities. In response to this challenge, the Schneider Electric Foundation has developed comprehensive training programs in more than 40 countries, harnessing in-house and partner expertise to provide quality training courses culminating in qualifications that address local employment markets.

Training lasts between four and six months, and students receive a certificate on completion. The Access to Energy Training and Entrepreneurship Program also supports longer, in-depth courses in energy-related fields. Incorporated in existing graduate programs, these courses provide a pathway to highly skilled and more stable positions or a step toward further training. This scheme is backed and strengthened by local education systems in partnership with numerous stakeholders and associations in the field, along with national educational bodies in France and the host countries.

Flexible training programs adapted to the skills of each student and focused on people from underprivileged backgrounds. The duration of a training program depends on the requirements of the job market.

- **Duration**: Four to six months for short certification programs; between one and three years for longer training.
- **Content**: A program comprising both theory and practical work focusing on observation and application. The training content developed with our partners covers various fields, including residential electricity, industrial electricity and solar power.
- **Equipment**: Schneider Electric has developed a range of training equipment for classroom and practical work, specially designed to meet local market needs (electrical skills, solar pump stations, motor control systems, etc.), as well as a modular library of content that can be tailored to local requirements.
- **Title**: Students graduate from the program with a course completion certificate or diploma as per local accreditation.
- **Career opportunities**: After training, students have the basic skills needed to work in energy-related fields as electricians, electrical maintenance technicians, etc. Alternatively, they may continue their studies or apply to Schneider Electric for support to set up their own businesses. Our training programs allow trainees to enter the labor market with long-term employability. Graduate students are typically qualified for work in electrical installation, maintenance systems, construction and manufacturing. They can also choose further training in more specialized technical areas or go into general sectors like engineering. The training programs we support enable trainees to enter the labor market on a long-term professional basis.
Value of short certification courses
The flexible course format matches the needs of the target audience: minimized written course material making it accessible to people with no formal vocational education, and short course duration enabling rapid access to revenue-generating activities, including entrepreneurship.

Value of longer courses
They reinforce the existing vocational training systems in the host countries and offer students the security of a diploma upon course completion.

SOUTH AFRICA: F’SASEC Center of Excellence

Partners: French Ministry of Education (provision of an expert), Vaal University of Technology (provision of premises and training – supervisory personnel), Schneider Electric and its Foundation (sharing industrial and commercial know-how and co-funding the technical platform and equipment).

Solutions: Created in 2012, the center trains technicians from basic to more advanced levels, covering topics related to electricity, energy and automated system control. Benefits of centers of excellence: strengthen education-industry relations, boost local workforce qualification with high-quality practical training, promote the company’s know-how, stimulate rapid modernization of vocational training systems, and enhance the employability of young people.

Outcomes: more than 340 students already trained. In 2016, the training center network known as the French South African Schneider Electric Education Center (F’SASEC) Network, signed agreements with four additional partners in South Africa: Cape Peninsula University of Technology, Sedibeng TVET College, University of Johannesburg and the College of Cape Town for TVET. More recently the network has expanded to Mozambique and Malawi with further expansion in South Africa in 2020.

Click here to find out more
4. Training trainers

The Access to Energy Training and Entrepreneurship Program provides valuable support to trainers involved in projects at its training centers. The aim is to help trainers thoroughly grasp the training approach and materials, enabling them to efficiently convey full and relevant knowledge to the students in short and long courses. Training of trainers ensures effective long-term transmission of quality, up-to-date knowledge finely tuned to the characteristics of today’s energy markets in the host country.

Educating trainers at training centers, the personnel of NGOs partnering with the Schneider Electric Foundation and other technical trainers.

- **Duration**: Several weeks to several months
- **Content**: Trainers are supported to update their skills in line with current standards. They are trained in instructional methods, and their level of technical knowledge is enhanced in all the sector’s technologies and innovations. Schneider Electric and its Foundation co-fund the training equipment and teaching materials and help to develop the courses.

Training of trainers relies on the commitment of locally based Schneider Electric employees and retirees, as well as initiatives such as VolunteerIn and Pass ONG, fostering sharing of experience between Schneider Electric experts and the training staff. Some training centers are dedicated to training trainers, such as the Center of Excellence in Electricity, Automation and Renewable Energies in Bandung, Indonesia.
I helped to create an entire training module using a pragmatic and realistic approach. I feel like I’ve contributed to a better future for a lot of young people in Vietnam.”

Nathalie Nguyen,
Manager, Customer Digital Experience
Mission in 2019 as part of the IECD Seeds of Hope Program in Vietnam

Value of training trainers
The objective is to strengthen know-how and ensure long-term operation of training programs by furthering the self-reliance of partner organizations and local education systems. We actively work to develop our trainer instruction program by opening more and more centers specially dedicated to this type of training.

Success story

INDONESIA: Center of Excellence in Electricity, Automation and Renewable Energies

Partnership: The Indonesian Ministry of Education and Culture (premises and teaching – supervisory staff and co-funding of technical platform and equipment), French Ministry of National Education and Youth (teaching expertise and long-term on-site support), Schneider Electric Indonesia and the Schneider Electric Foundation (industrial knowledge and co-funding of technical platform and equipment).

Solutions: This Center of Excellence trains technicians at junior and advanced levels in electrical power, industrial automation and renewable energies. It aims to strengthen education-industry relations, boost local workforce qualification with high-quality practical training, promote the company’s know-how, stimulate rapid modernization of vocational training systems, and enhance the employability of young people. With this partnership, the aim is also to renovate 184 laboratories in vocational schools across the country.

Outcomes: In 2019, the center trained more than 80 trainers and 40 technicians, renovated 40 vocational school laboratories and helped over 5,500 students.
5. Entrepreneurship support

Encouraged by the achievements of its training courses, the Access to Energy Training and Entrepreneurship Program is going further by providing informal entrepreneurs and those trained in the electricity sector with support in setting up their own businesses. Employment markets in emerging economies are characterized by high proportions of informal sectors, underemployment and people holding multiple jobs to make ends meet. In addition to specific skills training, entrepreneurs need business startup support, both being key factors in the creation of long-lasting businesses.

Training for people who have completed Schneider Electric training courses, electricians in the informal sector and social entrepreneurs.

• **Duration:** Two to seven days of initial training, several months of support by our partners.

• **Content:** In addition to enhancing technical expertise in the electricity sector, the programs are designed to provide entrepreneurs with the managerial tools and skills they need to run their businesses and become part of the formal economy, a measure of stability. They also support entrepreneurs in their development, from idea to the market, through a process of mentoring and knowledge sharing.

• **Equipment:** Schneider Electric has developed a range of training materials for classroom and practical work, specially designed to offer a close match to local market needs (electrical skills, solar pump stations, motor control systems, etc.), as well as a modular library whose content can be customized.

• **Career opportunities:** We help participants to network with their peers and other stakeholders to create a positive local ecosystem. We act as a facilitator to give entrepreneurs access to the financing they need to get their businesses underway. We structure the skills of informal entrepreneurs in energy to ensure the safety of facilities and the development of their businesses.

**Value of support for entrepreneurship**

Assist people in creating their own businesses while helping to ensure access to energy for all; contribute to local economic and social development; and foster the employability of young people and the inclusion of women in energy professions.
895+
entrepreneurs trained
since 2015

Success story

BURKINA FASO

Partnership: Initiative France (in-depth knowledge of funding and support for entrepreneurship) and the Schneider Electric Foundation (knowledge and expertise in the energy sector).

Solutions: This project combines a short, certification training course in electrician skills with identification and funding solutions via interest-free loans and business creation support. To roll out this program, Initiative France relies on its local partners comprising four initiative network platforms in Burkina Faso: Initiative Bobo Dioulasso, Initiative Ouagadougou, Initiative Plateau Central and Initiative Tenkodogo. Each platform offers support to between 20 and 25 entrepreneurs.

Outcomes: 88 electricians received 30 hours of "skills validation" training in electrical measurement and home wiring. 68 loans between €460 and €760 were granted for the purchase of equipment, such as ladders, drills or toolkits, to upgrade electrical workshops.
Our partners
The Schneider Electric Foundation lends its support to innovative, future-focused initiatives aimed at providing the greatest number of people with the energy necessary to succeed. Always forward-looking and optimistic, the goal of the Schneider Electric Foundation is to play a part in creating a fairer, less carbon-intensive society that gives future generations the tools to transform our world.

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Take a look at the impact of our training programs in the Tomorrow Rising web series.

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