

Introduction to Renewable Energy Sourcing

Learn about commercial and industrial (C&I) sourcing of Renewable Energy (RE), technical solutions and their availability by country.

Image: depositphotos.com

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Who this is for

Factory owners in the textile and garment industry

In brief

Sourcing renewable electricity can increase your profitability and competitiveness and protect your business against power shortages and other risks. At the same time, it helps mitigating the impact of climate change.

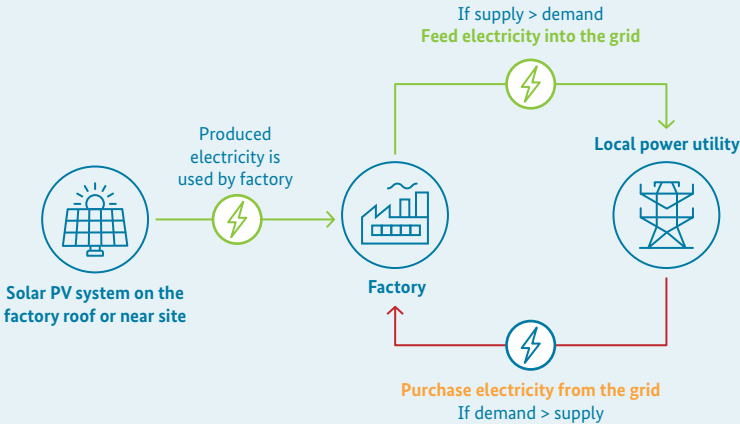
Why can renewable electricity help to boost and protect your business?

 Profitability	<ul style="list-style-type: none">• Renewable energy can decrease your electricity costs<ul style="list-style-type: none">› Generation costs are on a similar level or significantly lower than fossil fuels.› PV technology declined in cost by 82% from 2010 to 2019.
 Competitiveness	<ul style="list-style-type: none">• RE increases investor and client confidence and credibility.• It improves brand reputation and consumers are demanding it (73% of millennials are willing to pay more for sustainability¹).• More companies are setting sustainability targets and joining global initiatives, such as the RE100, the SBTi and the Higg Index².• Pressure on suppliers to implement environmental commitments in their operations increases.
 Risk mitigation	<ul style="list-style-type: none">• RE offers protection from increasing energy price and volatility (both trends expected across the Asia-Pacific region).• RE ensures your compliance with expected regulatory changes for increased sustainability.• RE increases the security of your electricity supply.
 Emission reduction	<ul style="list-style-type: none">• Renewable energies help mitigating the impact of climate change• By sourcing RE, you can reduce the emissions of your electricity consumption (Scope 2).• Value chain electricity emissions can also be addressed by engaging suppliers to use RE (Scope 3).

What are the various ways you can source renewable electricity?

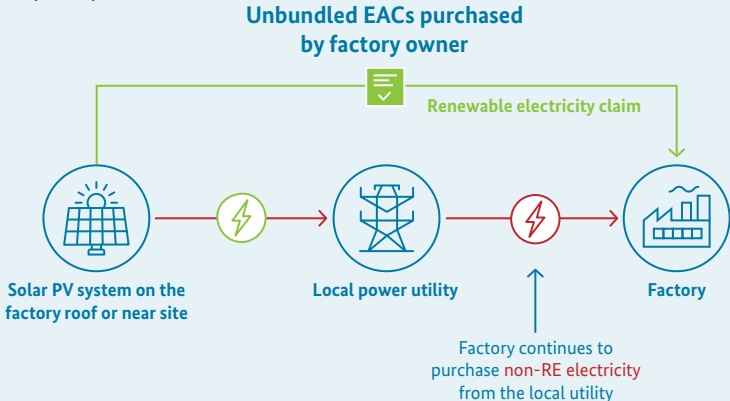
On-site generation (such as rooftop solar)

Electricity is produced via solar panels on rooftops or nearby land for direct consumption, storage or export. With an on-site solution you can directly consume the electricity generated to power your operations.



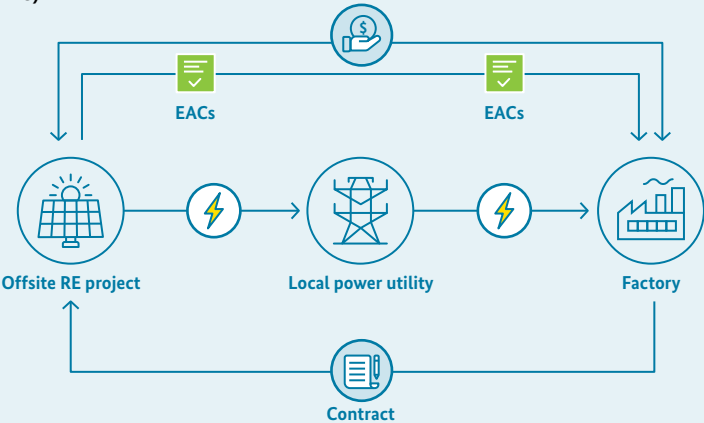
Purchasing unbundled energy attribute certificates (EACs)

An EAC is a tracking tool that certifies that 1 megawatt-hour (MWh) of energy was generated in a specific renewable facility. The factory purchases EACs from an EAC supplier depending on how much of its consumption it wants to certify as renewable. With EACs there is no physical delivery of renewable energy, as the factory would continue to source energy from local utilities to power its operations.


















Off-site corporate power purchase agreements (PPAs)

An off-site PPA is a contractual agreement between energy buyers (factories) and sellers (RE project). Under a PPA, a factory agrees to buy electricity and EACs from a renewable electricity project at a pre-determined price for an agreed number of years. The full details are set out in a contract between the RE project and the factory. Corporate PPAs are not yet common in the region.



What are the differences between RE sourcing options?

The three proposed RE solutions would allow you to effectively claim renewable electricity. Not all, however, offer the same opportunities and benefits, with some of the criteria that needs to be considered before selection outlined below.

	On-site renewables	Unbundled EACs	Corporate PPAs
Emission reduction Reduces Scope 2 emissions under international reporting standards like CDP or SBTi	 low emissions	 low emissions	 low emissions
Cost-savings potential The potential to lower your power procurement costs	 High cost-savings potential	 No cost-savings	 High cost-savings potential
Ease of implementation Speed and transaction costs related to sourcing the solution	 Implementation time: weeks to months	 Implementation time: days	 Implementation time: months
Power price protection The level of protection the solution provides against volatile spot market power prices	 Strong price protection	 No price protection	 Strong price protection
Additionality Does the solution lead to additional renewable energy capacity in the grid?	 High additionality: new MWh of capacity	 No additionality: typically from existing project	 High additionality: if contracted with new project

Legend

				
A bare tree (with no leaves) indicates that the solution is not attractive against the indicator.	The number of leaves indicates the range, from less attractive (trees with fewer leaves) to more attractive (trees with more leaves).			A full tree indicates that the solution is highly attractive against the indicator for the solution.

List of abbreviations and acronyms

Abbreviation/Acronym	Description	Abbreviation/Acronym	Description
C&I	Commercial and industrial	PPA	power purchase agreement
EAC	Energy attribute certificate	RE	renewable energy



Image: depositphotos.com

Not all solutions are available in every country.

What solutions are available in your country?			
Country	On-site RE Installed in adjacent land or rooftop	Unbundled EACs Certificates purchased on the market	Corporate PPAs Long-term electricity contract with a RE producer
Bangladesh	✓	✓ I-RECs and TIGRs	✗
Cambodia	✓	✗	✗
Pakistan	✓	✗	✗
Viet Nam	✓	✓ I-RECs and TIGRs	Pilot programme launched in 2021

To explore more topics related to solar PV, please review the full set of briefing notes. Topics include:

- How a solar PV system works
- Assessing suitability for rooftop solar projects (technical perspective)
- Assessing the business case for on-site solar (financial perspective)
- Solar regulations and policy framework
- Different investment models for rooftop solar projects
- Local financing programmes for rooftop solar projects

1 <https://www.nielsen.com/us/en/press-room/2015/consumer-goods-brands-that-demonstrate-commitment-to-sustainability-outperform.html>

2 Science based targets (SBTs) provide companies with a clearly-defined path to reduce emissions in line with the Paris Agreement goals. Sourcing renewable electricity is an important element of the carbon management portfolio needed to achieve an SBT. SBTs also require supply chain emission reductions. Further information on Science-Based Targets is covered in the Climate Training E-learning Module 4 on Target Setting. Brands and retailers using the Higg Index (Developed by the Sustainable Apparel Coalition) award points to factories with some share of RE sourcing. The Higg Index delivers a holistic overview that empowers businesses to make meaningful improvements that protect the well-being of factory workers, local communities, and the environment.



Image: © GIZ / Sabrina Asche, 2017

ABOUT FABRIC

The project FABRIC (Fostering and Advancing Sustainable Business and Responsible Industrial Practices in the Clothing Industry in Asia) is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, which works on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ). To successfully shape the desired economic growth in Asia's textile and garment production in a sustainable

way, many parties need to be involved. GIZ's FABRIC project brings together people from the Asian industry, public sectors, NGOs and from international buyers, promoting knowledge transfer and cooperation. FABRIC is working in Bangladesh, Cambodia, Myanmar, Pakistan, Viet Nam and together with China to strengthen an industry that offers quality jobs, protects the environment and contributes to economic growth.

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