



RE-power your business and decarbonize your supply chain on the way towards net zero

20 March 2024



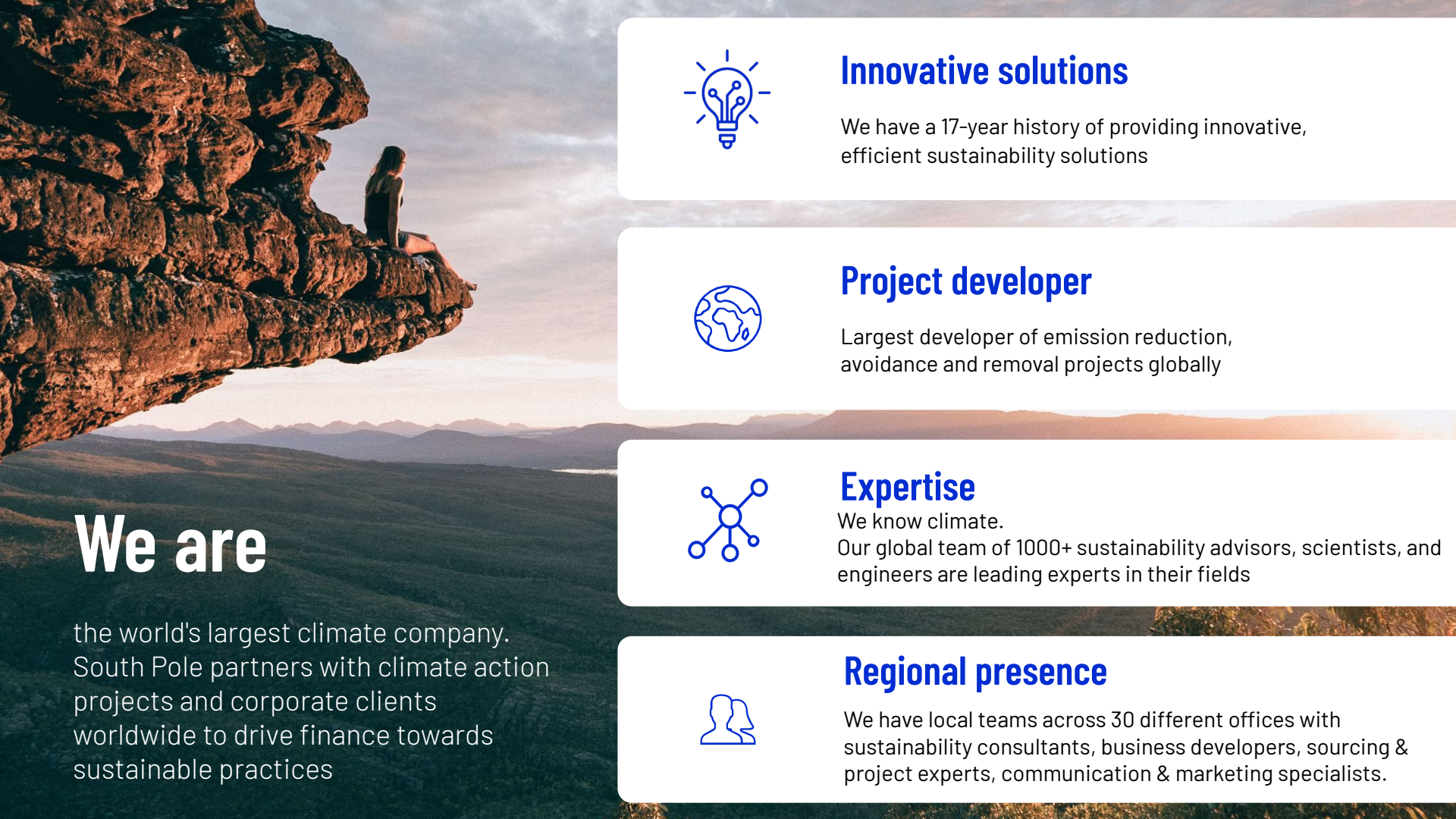
**Who is this
webinar for?**

**What will we
talk about
today?**

Corporates who are keen to understand how renewable energy can support their company's decarbonisation plans

Why? How?

- ✓ How does renewable energy fit within a net zero strategy?
- ✓ What are the key concepts I need to understand?
- ✓ Overview of renewable energy solutions and where they can be mobilised through scopes 1, 2 and 3.
- ✓ Q&A



We are

the world's largest climate company. South Pole partners with climate action projects and corporate clients worldwide to drive finance towards sustainable practices



Innovative solutions

We have a 17-year history of providing innovative, efficient sustainability solutions



Project developer

Largest developer of emission reduction, avoidance and removal projects globally



Expertise

We know climate. Our global team of 1000+ sustainability advisors, scientists, and engineers are leading experts in their fields

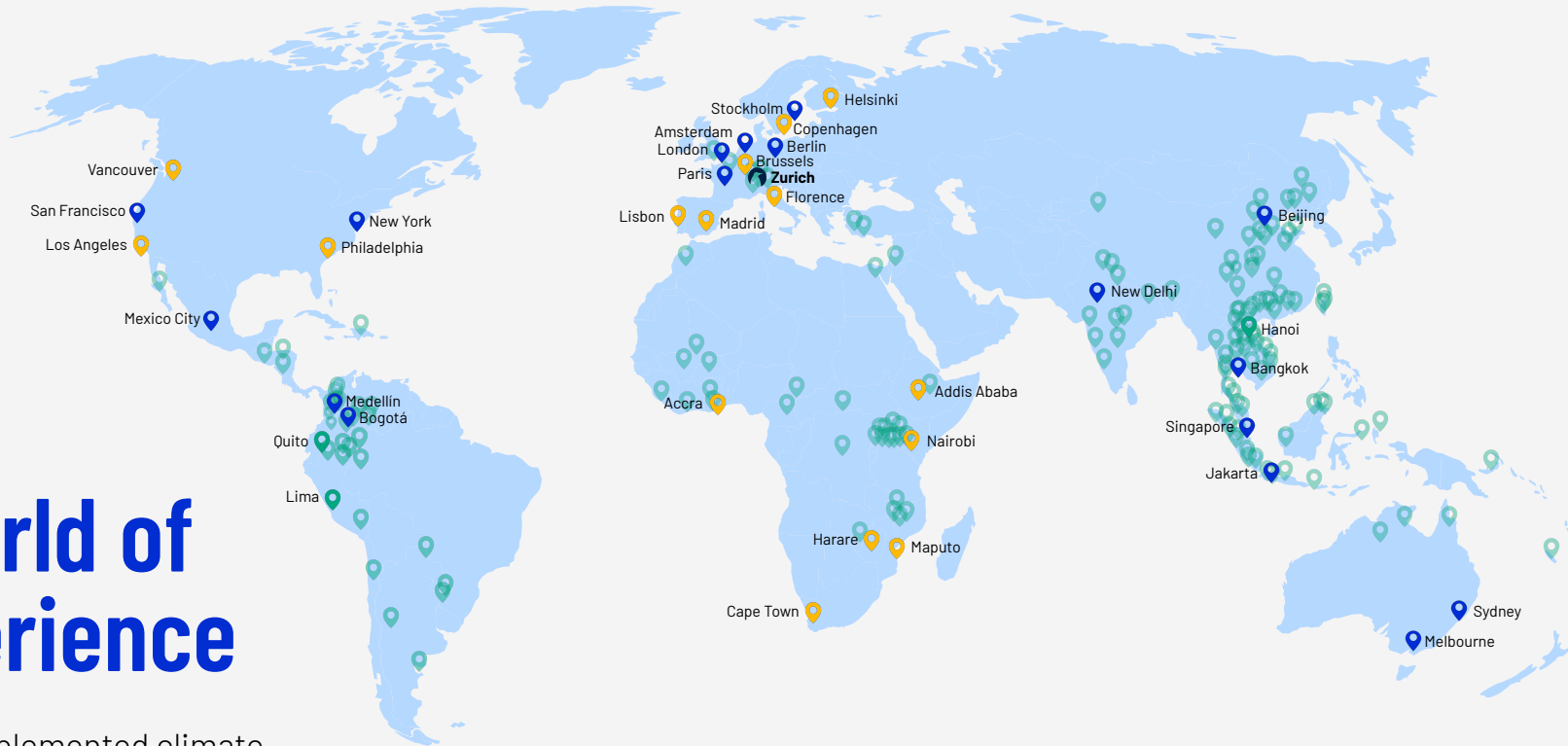


Regional presence

We have local teams across 30 different offices with sustainability consultants, business developers, sourcing & project experts, communication & marketing specialists.

A world of experience

We have implemented climate projects in countries across the world and have over 30 local offices and 41 representations



- Headquarters
- Regional offices

- Representations
- Selection of South Pole's climate action projects

The climate journey

Strategy advisory

Knowledge building workshops, Target setting, RE Strategy (Scope 1 and/or Scope 2), PPA/On-site/EAC strategy, REPowering your Value Chain (Scope 3)



**Measure
footprint & risks**



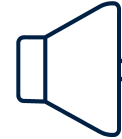
**Set targets &
create roadmap**



**Reduce
footprint**



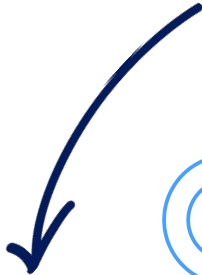
**Fund
climate action**



**Communicate
& lead**

RE implementation

EAC procurement and advisory, PPA sourcing, On-site PV procurement advisory



Our RE impact

South Pole helps clients address climate change impacts by transitioning to renewable energy.

Our advisory and implementation services aim to **maximize impact**, **mitigate risk**, and deliver on **cost saving opportunities**.

146

Provided advisory on sourcing renewable energy in 146 countries



26+

TWh of EACs delivered

That's more than the yearly renewable electricity consumption of Denmark



92

Facilitated the procurement of 92 TWh of renewable energy to be delivered over the next 10 years



Our speakers



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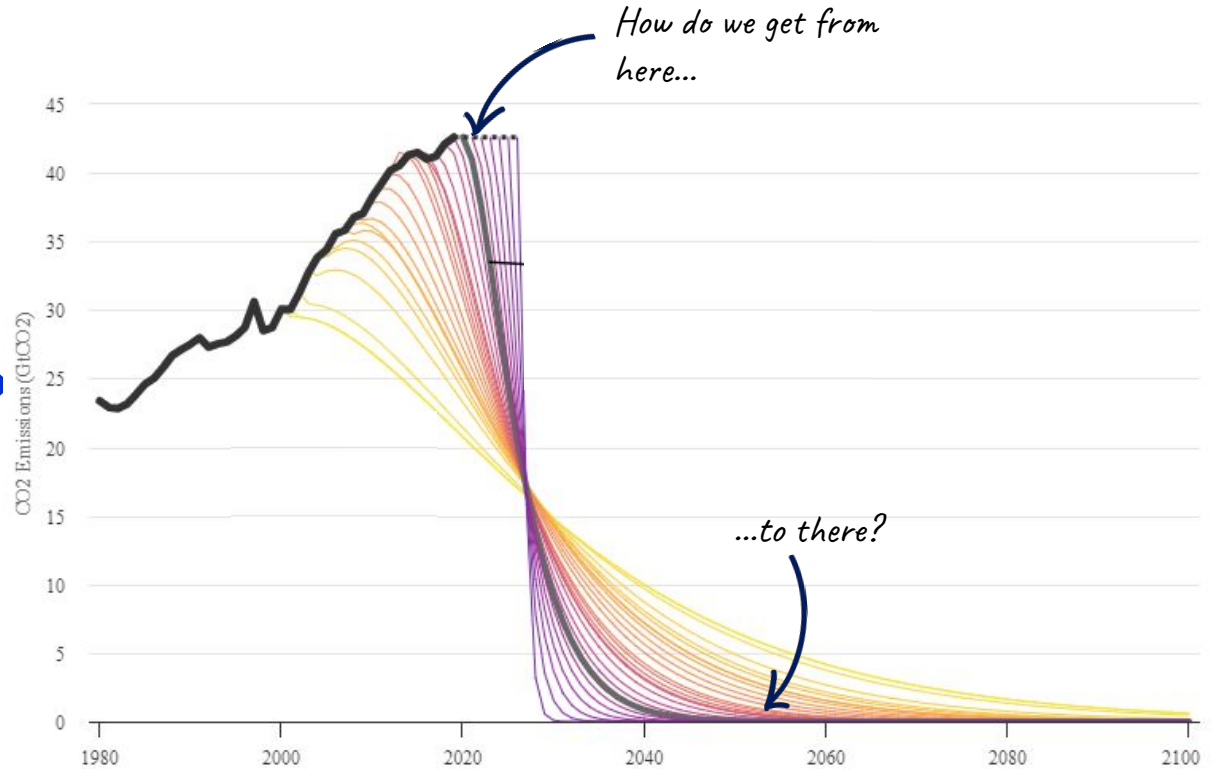
e.ratajczak@southpole.com

Offices and representations worldwide:

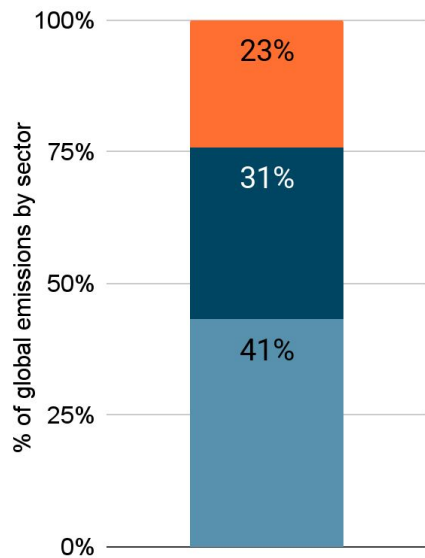
Amsterdam, Bangkok, Beijing, Bogotá, Brussels, Copenhagen, Hanoi, Helsinki, Jakarta, London, Madrid, Medellín, Melbourne, Mexico City, Milan, New Delhi, New York, Paris, San Francisco, Singapore, Stockholm, Sydney, Zurich.

The big picture

The big picture



Source: Carbon Brief - Will global warming 'stop' as soon as net-zero emissions are reached?



■ Agriculture, industrial processes, Land-use change & others
■ Electricity & heat generation ■ Energy for transportation, manufacturing, construction

- Electrification of majority of transport, manufacturing, and construction sector.
- Move electricity (& heat) generation to renewable electricity sources

How does renewable energy fit into a corporate net zero strategy?



Company's value chain (scope 3)

- Develop scope 3 strategy
- Find right strategy to engage your supply chain



Company's operations (scope 1+2)

- Renewable electricity for scope 2
- Electrification and renewable fuels in scope 1



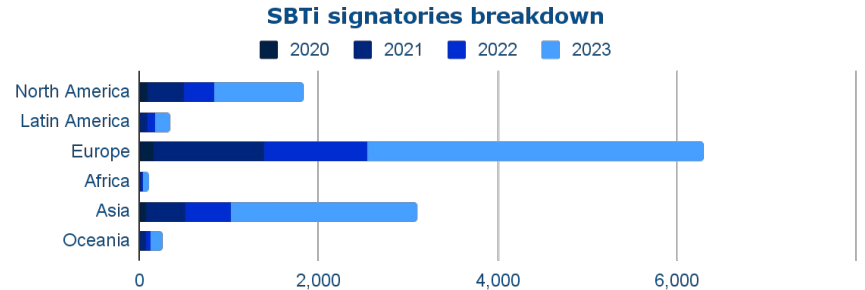
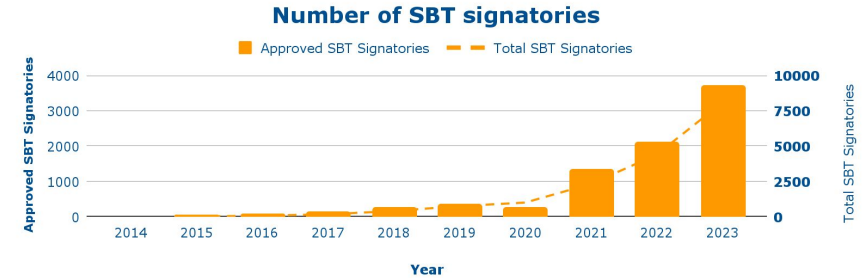
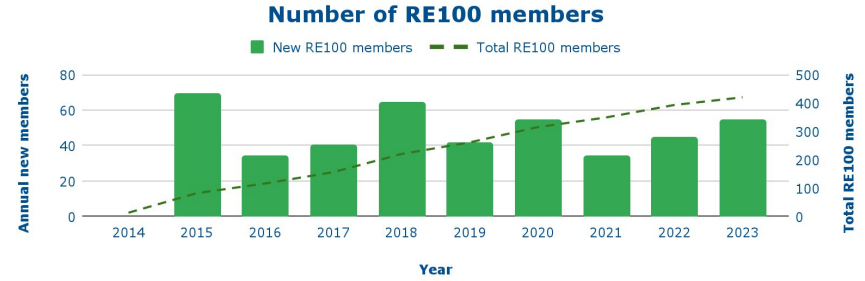
Getting into the detail....

The image shows two large white wind turbines on a dark, rocky hillside. The sky is a mix of orange, pink, and blue, indicating a sunset or sunrise. The turbines are positioned on either side of the central text. The turbine on the right is more prominent, showing its three blades and the nacelle. The background features a range of mountains and a body of water in the distance.

Annual clean energy investment worldwide will need to more than **triple by 2030** to around \$4 trillion, annually.

Continued strong demand for renewable claims

- Uptake of science-based targets is growing exponentially. **More companies set science-based targets in 2023 than in the previous eight years combined.**
- The SBTi and RE100 provide guidance on **80% RE sourcing by 2025 and 100% by 2030.**



Scope 2



**What are the
benefits of
renewable
electricity?**

Renewable Electricity =

Sustainability + (Potential) Cost Savings

Five reasons not to wait on renewable electricity

1. You're already paying for electricity.

It's always harder to find budget for something new; but we presume buying electricity isn't new to your organisation.

2. You already have the necessary data.

Simply because it's smart from a business perspective to know how much electricity you're buying and where you're buying it.

3. You can save money.

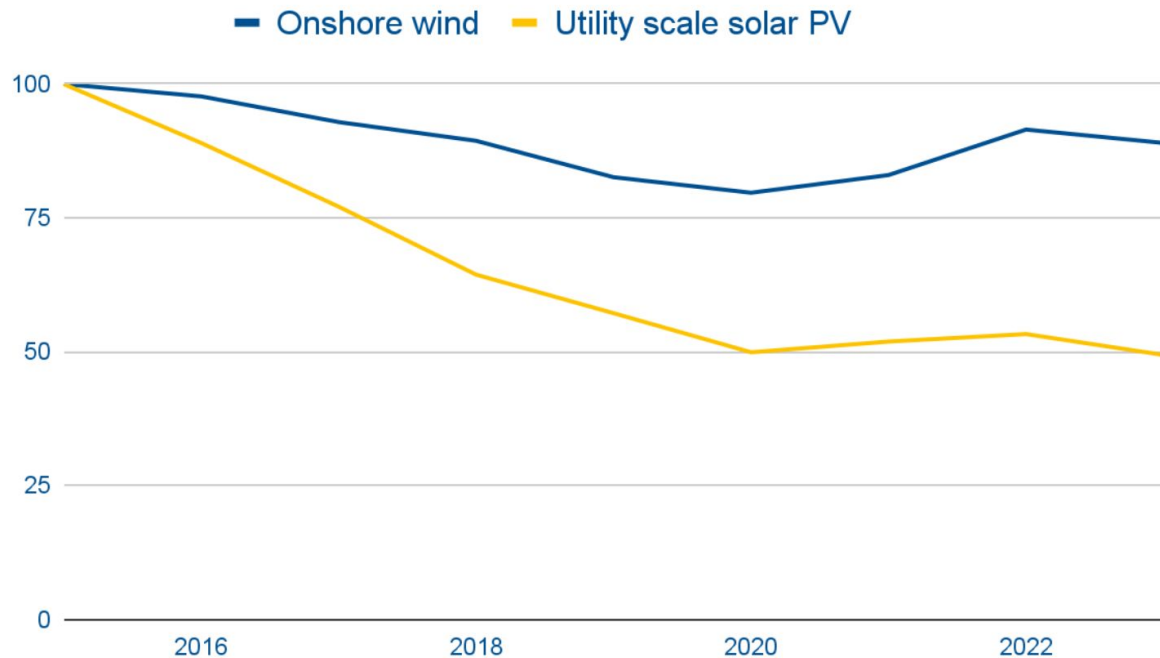
Thanks to falling solar and wind costs, renewable electricity, in many cases, costs less than fossil fuel electricity.



Solar & Wind Costs Have Plummeted

Solar was half as expensive in 2023 as it was in 2015.

RE investment cost estimates for new contracted projects



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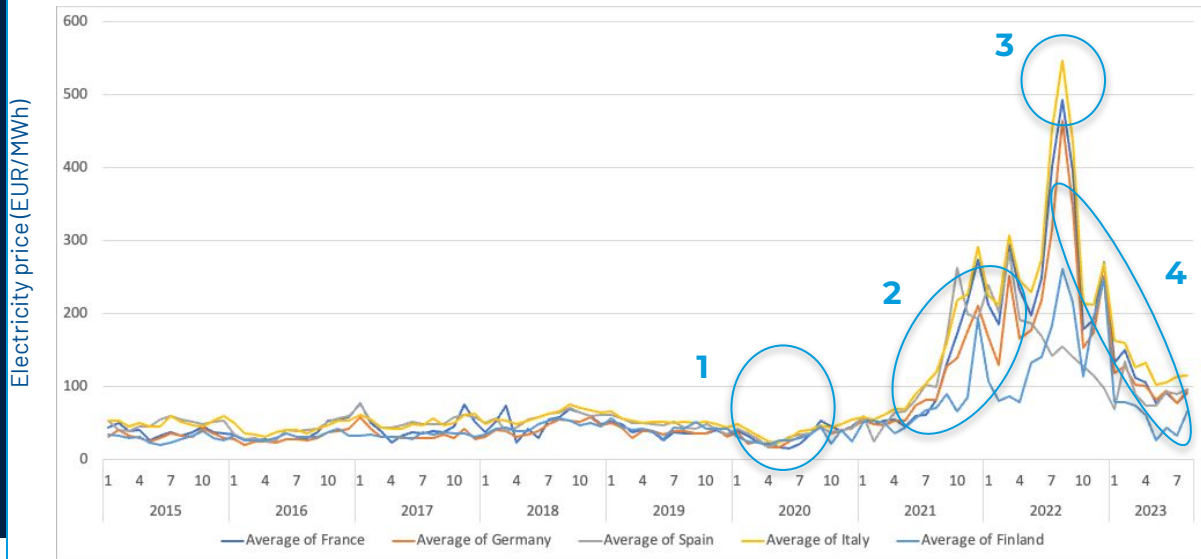
4. You can hedge against volatile electricity prices.

Some solutions enable you to lock in a particular rate over the long term or take an offsetting position.



Europe electricity price evolution

European electricity price evolution (2015-2023)



1. **2020** – Covid-19 (low demand)
2. **2021** – Natural gas supply crisis (high demand & low supply)
3. **2022** – Russia x Ukraine war, hydro and nuclear impact
4. **2022-23** – EU interventions, demand reductions and restructuring LNG supply

Day-ahead baseload spot market prices

ENTSO-E Europe Electricity Price Transparency platform.
Established on 5 January 2015.

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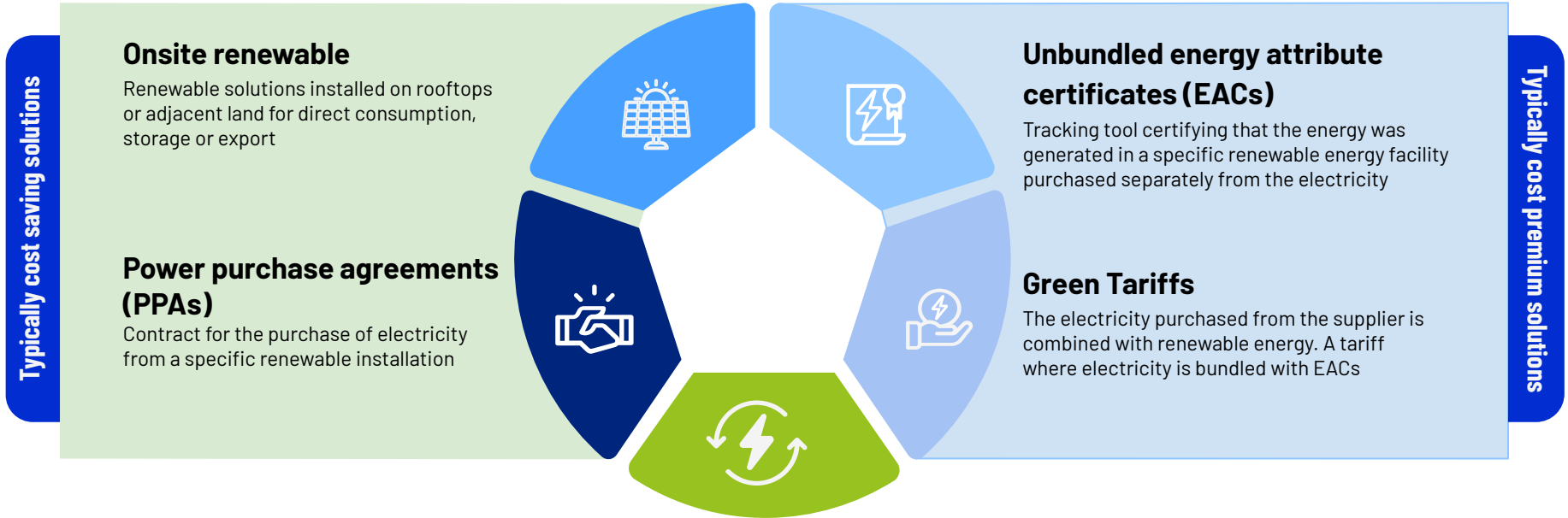
5. The savings can finance other decarbonization efforts.

The savings from RE can in part finance the more expensive investments needed to fully decarbonise.

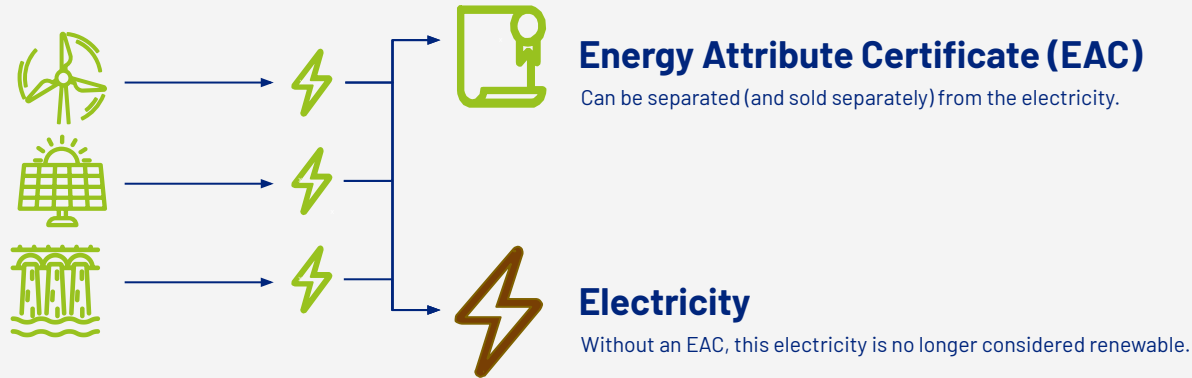


What are the four main renewable electricity sourcing options?

Businesses typically use a mix of RE solutions



1. What is an EAC?



An EAC represents the renewable-ness of 1 MWh of electricity.

2. What is additionality?

Developer + _____ \neq Project

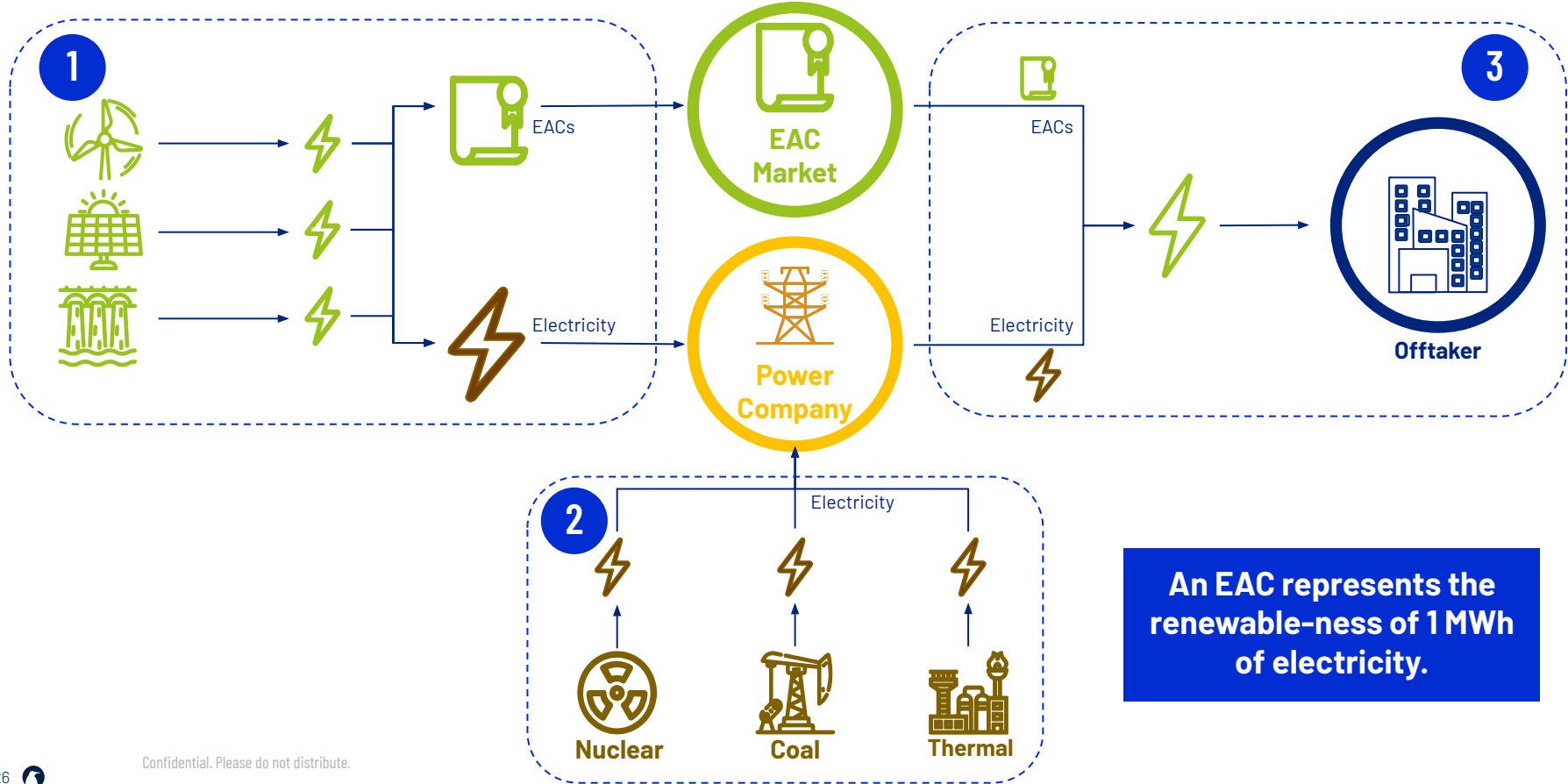
Developer + Offtaker = Project

Provided additionality.

That a project would not exist but for the offtaker.

Main RE Solutions

What is an Unbundled EAC?



An EAC represents the renewable-ness of 1 MWh of electricity.

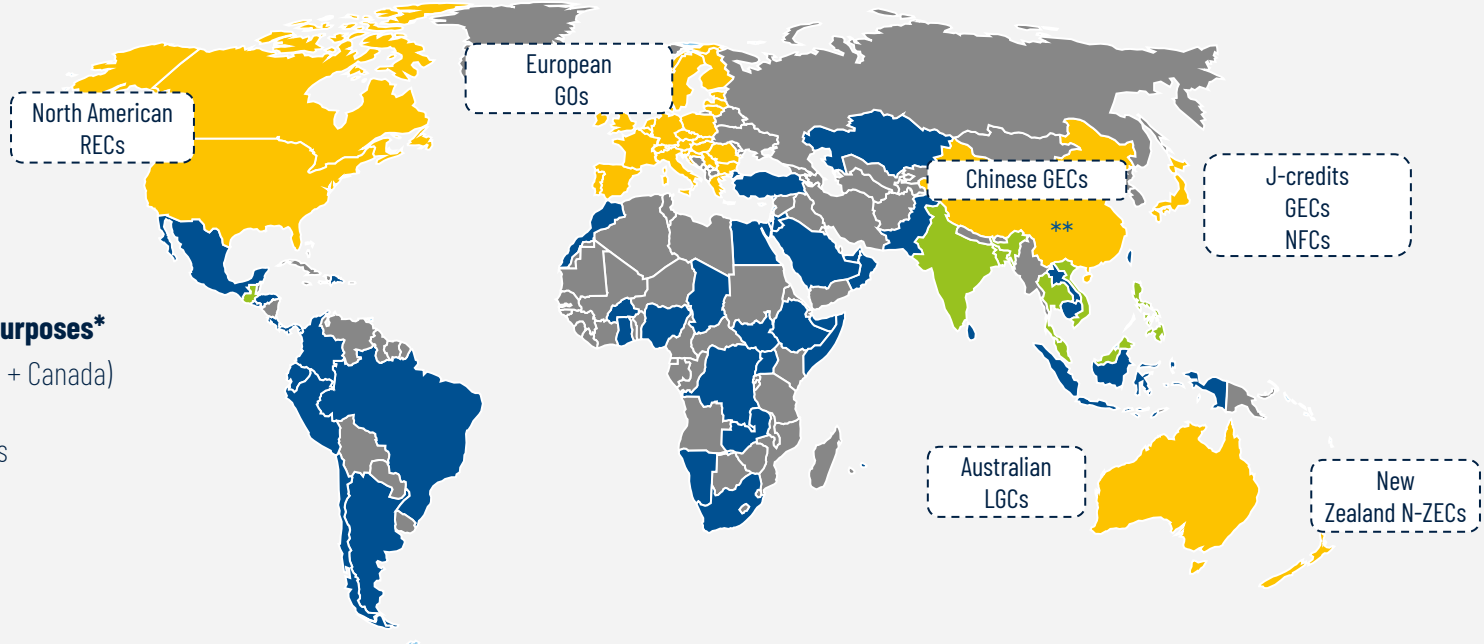
What are the main quality criteria for EACs?

Market of origin

Buy locally—from the same market in which the company has operations.



Why do market boundaries matter?



Markets for Reporting Purposes*

- North America (U.S. + Canada)
- Europe AIB
- Individual Countries

National and/or regional scheme

THE INTERNATIONAL REC STANDARD

THE INTERNATIONAL REC STANDARD & TIGRS
Tradable Instruments for Global Renewables

EACs currently unavailable

*To date. The global availability of EACs as of June 23

**China has a national scheme (GECs) and international schemes (I-RECs and TIGRs). Australia has LGCs and I-RECs.

What are the main quality criteria for EACs?

Market of origin

Buy locally—from the same market in which the company has operations.



Technology

Evaluate whether you have renewable technology preferences.



Vintage

Match vintage (i.e., generation period) with consumption period.



Premium Label

For additional impact claim, preferably use third-party verification labels: EkoEnergy, Gold Standard, Green-e or D-RECs.



Comparing the solutions

Key differences between the renewable electricity solutions*

Unbundled EACs
e.g. GOs, TIGRs, RECs or I-RECs



Renewable electricity

Reduces scope 2 emissions



Cost-savings potential

The potential to lower your power procurement costs



Ease of transaction

Speed and transaction costs related to sourcing the solution



Power price protection

The level of protection the solution provides against volatile spot market power prices



Additionality

Does the solution lead to additional RE capacity in the grid?



Note: The denser the tree the bigger the impact.

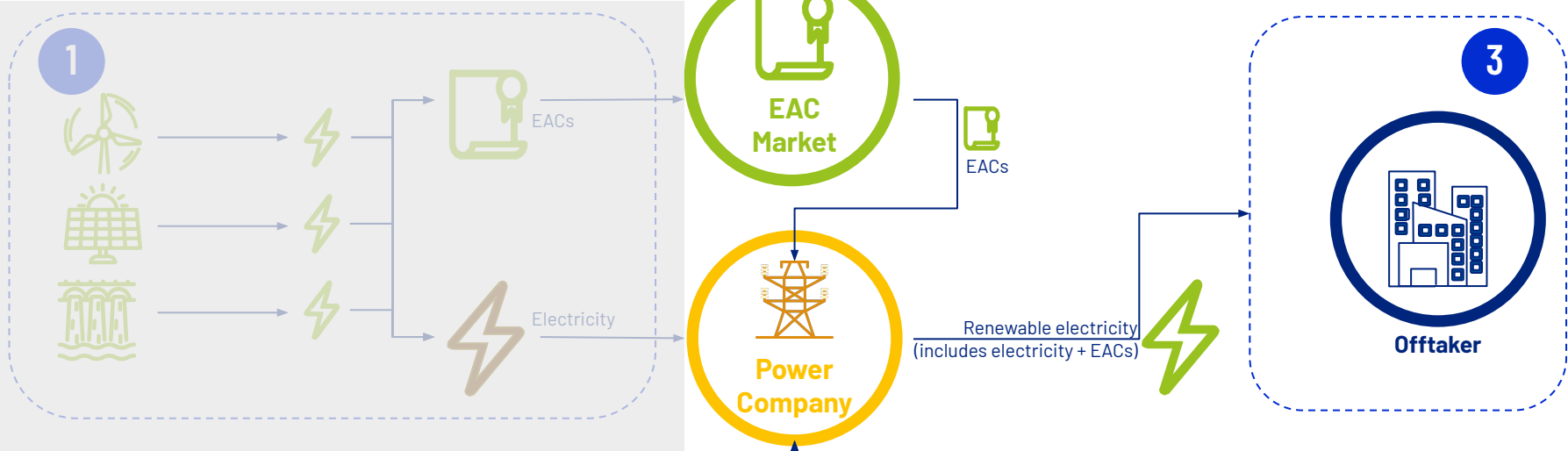
Advantages

- **Flexible procurement**--any quantity at any time
- Completely **detached from the retail contract**
- **Widely available**

Considerations

- **Premium cost** on top of the electricity costs
- Require **forward purchase** to lock in preferred forward prices
- Requires the **procurement and retirement management of EACs**
- **No direct additionality** claim possible, unless with long-term EACs contract with new RE projects

What is a Green Tariff?



An EAC represents the renewable-ness of 1 MWh of electricity.

Comparing the solutions

Key differences between the renewable electricity solutions*



Green tariff

Utilities bundle power and RECs in one tariff



Renewable electricity

Reduces scope 2 emissions



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Additionality

Does the solution lead to additional RE capacity in the grid?



Advantages

- **Increasingly available** in mature markets
- Wrapped into **physical energy procurement process**, lower year to year effort

Considerations

- **Premium cost** on top of the electricity costs
- Potential **lack of transparency** of electricity source/project
- Variance in terms of additionality
- Can limit retail contract choice
- Not available in all markets

How does a PPA work?

1. You **sign a long-term agreement** with a project developer who then builds, maintains and operates a **renewable energy project** (e.g. wind or solar)

2. The **long term contract** and **fixed electricity price**, with you as a credible electricity offtaker, provide the project developer with the **security to receive financing** for the project

3. A renewable energy project is installed by the project developer and **delivers renewable electricity** to the power grid

4. You can claim the use of **renewable energy** and potentially benefit from **cost savings** in return for the commitment.



Your drivers for a PPA

There are two main 'buckets' of benefits for companies with a large electricity demand



Cost Savings

- Price competitiveness
- Long term hedge
- Security of supply

Climate Leadership

- CO2 reduction targets
- Sustainability reporting impact
- Additionality of the procured RE

APAC emerging PPA hotspot

Europe and North America are the most mature PPA markets.

Within Europe, the Nordics, and Spain, continue to be the hottest markets .

APAC is a growth market, India and Australia both increasing transactions and nascent markets are developing, eg. China.


Global corporate PPA volumes, by region 2008-2023

Global corporate PPA volumes, by region



Comparing the solutions

Key differences between the renewable electricity solutions*

 **Corporate PPAs**
An offtake contract with a power generator



Renewable electricity

Reduces scope 2 emissions



Cost-savings potential

The potential to lower your power procurement costs



Ease of transaction

Speed and transaction costs related to sourcing the solution



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Additionality

Does the solution lead to additional RE capacity in the grid?



Advantages

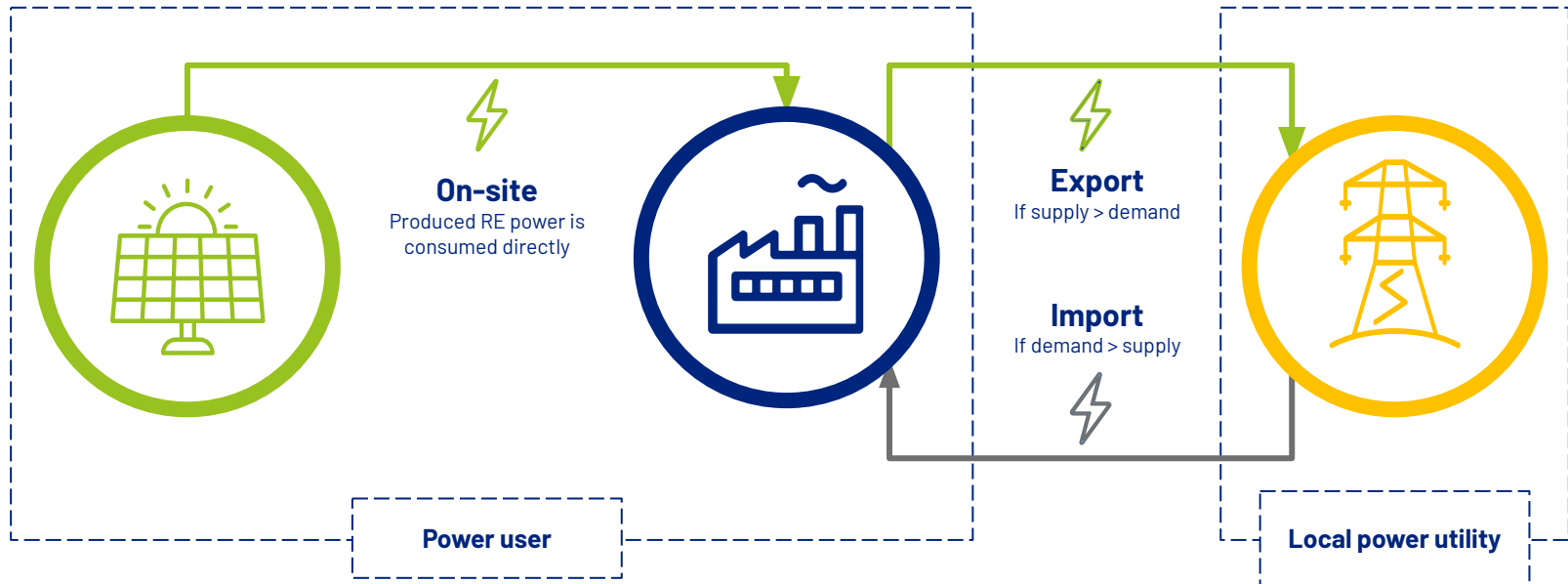
- High **additionality claim**
- Potential for significant **cost savings**
- Potential to **risk manage energy prices**

Considerations

- Long **contractual commitment**
- Typically **larger volumes (>50GWh)** in one market needed to secure the best PPA prices
- Can trigger **derivative accounting** treatment (virtual PPA)

On-site renewables

- Typically consists of a **solar photovoltaic (PV) power plant on the rooftop or on adjacent land**
- Allow consumers to **reduce their environmental footprint and energy costs**
- Could be financed with **capital expenditure (CAPEX)** or **operational expenditure (OPEX)**



Comparing the solutions

Key differences between the renewable electricity solutions*



Onsite renewables
Renewables on or near site



Renewable electricity

Reduces scope 2 emissions



Cost-savings potential

The potential to lower your power procurement costs



Ease of transaction

Speed and transaction costs related to sourcing the solution



Power price protection

The level of protection the solution provides against volatile spot market power prices



Additionality

Does the solution lead to additional RE capacity in the grid?



Advantages

- **High-level sustainability claim**
- Potential for **cost savings**
- **Financing partnerships** can be set up

Considerations

- May require **significant initial capital investment**
- Typically **covers small portion** of the site's consumption
- Only suitable for **owned or long-term (>20 years) leased sites** with available rooftop/near site area
- **High transaction costs**--feasibility study required

Comparing the solutions

Key differences between the renewable electricity solutions*



Note: The denser the tree the bigger the impact.

REpowering scope 3



Suppliers emit **11x** more
emissions than companies' own
emissions

However

only **37%** of corporates are
engaging their own suppliers to
cut emissions.

We are seeing an increase in renewable sourcing to address **supply chain emissions**



Influencing your supply chain for RE switch:
70% of the CDP supply chain members are actively engaging with suppliers to make the switch to renewable electricity.

Aggregated PPAs are increasing between offtakers with smaller power demands and corporates who want to leverage better prices for higher volumes.

Why are companies looking to reduce their Scope 3 emissions?

The majority of companies' carbon emissions can oftentimes be found in their supply chain. By investing in renewable electricity, our clients and their value chain partners can easily reduce a significant amount of their environmental footprint



Comply with local market regulations and adhere to international reporting requirements



Enhance brand reputation and demonstrate a commitment towards taking global climate action



Attract sustainable investors potentially unlocking access to capital and financial support



Reduce long-term costs and hedge against price volatility



REPowering your value chain

Supply chains are complicated, and each one is unique. With **South Pole's REPowering offering**, clients can **pick and choose** those elements that will deliver the **most value to them and their suppliers**, enabling them to **achieve their emission reduction targets**.

1

Data collection

Data collection and management with bespoke tools.

2

Scope 3 strategy

Define a strategy to decarbonise your supply chain by implementing renewable electricity.

3

Direct supplier engagement

Secure internal buy-in.
Provide skills and tools to take action.

4

Implementation

Renewable sourcing advisory for suppliers and target implementation.

5

Tracking progress

Enabling and tracking suppliers' renewable sourcing progress.

How can we boost engagement

Industry examples

Building supplier capabilities



South Pole partnered with Reformation to deliver **knowledge building to key suppliers**. Topics included fundamentals of climate change, greenhouse gas accounting and a **deep dive on corporate RE sourcing**. This included a focus on **how RE solutions work including implementation considerations**. The aim of the sessions was to provide suppliers with the **tools to take concrete sourcing action**.



Microsoft has recently **engaged** with the **International Finance Corporation (IFC)** to launch a **partnership** and invite a **priority selection of Microsoft suppliers**. Through this partnership, suppliers in emerging markets have support on **identifying technical solutions** and **financing opportunities** that reduce emissions in their production processes.

Paying for performance



Since 2021, **Philips** has required that all suppliers set **GHG reduction targets** which are **formally captured within contracts**. The next step of this Supplier Code programme is to offer **beneficial payment terms to suppliers**, once certain minimum reduction thresholds have been met.



IKEA has set **100% renewable electricity targets** across the **full value chain**, as part of their climate positive 2030 ambition. To support **IKEA Supply Partners**, they offer **two financing solutions**: 1) 100m EUR financing program to **finance renewable electricity** generated on-site and 2) Program supporting the **access to off-site generated renewable electricity** in more than 16 key markets (bundled framework agreements or PPAs).

Leveraging procurement



AB InBev, partnered with South Pole to launch a **renewable electricity initiative**, empowering their suppliers and partners across Europe and North America to **access green power through coordinated group buying**. This initiative will extend **affordable access to renewable energy** for partners who might otherwise lack the means to secure such agreements independently. The program also has a strong focus on **building supplier capabilities**.



Walmart initiated a sustainable supply chain finance (SCF) program in **partnership with HSBC**, allowing **Walmart's suppliers to access more favorable pricing compared to conventional SCF options**. To be eligible for this program, suppliers must meet Walmart's specified sustainability standards.

Enforcing performance



HEINEKEN Procurement Cooling team shared one clear ask for fridge suppliers: **commit to SBTi** and **set SBTs** by the start of the next **tender cycle** in order to be a **HEINEKEN supplier in 2023**.

To support suppliers, **HEINEKEN** also applied the **BUILD CAPABILITY** lever and engaged **SOUTH POLE** to deliver a **virtual workshop** to onboard suppliers in setting SBTs.



BT piloted a **sustainability clause** with Nokia back in 2018, where their **commercial contract** requires Nokia to make **measurable carbon savings** over the term of contract with BT. To support this, BT offers **free energy audits** and **direct consultation**, through BT's designated sustainability consultant.

Key lessons from our scope 3 programmes

Sector: Fashion
Company

Category: 1 Purchased
goods and services

Scope: Capacity building
and support for individual
suppliers to set
renewable energy (RE)
targets, identify barriers,
and establish roadmaps.

RE implementation:
Aggregated EACs
purchase

Securing strong buy-in is crucial and can be achieved by engaging the right stakeholders from the beginning

Clear communication and setting aspirational targets boost achievement likelihood

Establishing a replicable data collection process results in efficient tracking, monitoring, and impact assessment.

Key lessons

Initial **capacity building** engages stakeholders in exploring RE sourcing possibilities.

Roadmapping highlights renewable electricity as an easy win for reducing emissions

Sector

Technology Company

Category

1 Purchased goods and services

Scope

Capacity building and support for individual suppliers to establish RE (Renewable Energy) roadmaps to **meet the brand's ambitious targets by 2030.**

Companies within the same industry and geographies share **common barriers, and common solutions.**

Partners value having a **trusted guide to assist in designing their roadmaps and strategies.**

Key lessons

Initiating action by sourcing RE opens doors to numerous opportunities for further emissions reduction

Capacity building provides partners with the tools to develop their own strategies

Management (decision maker) engagement throughout the process is critical input to long-term implementation.

Sector

Apparel

Category

1 Purchased goods and services

Scope

Knowledge building and aggregation of power demand among **supply chain partners for Green Power Trading in China**

RE Implementation Green Power Trading in China (long-term RE contract)

Knowledge building on new solutions is an important first step to ensure full alignment on process and risks.

Strong commitment and ongoing engagement - especially at working level - is a key success factor.

Early alignment on and commitment towards sourcing criteria is key for a successful aggregated procurement process.

Key lessons

Learning (case studies) from peers which are more advanced on RE sourcing can be a powerful tool to strengthen buy-in.

Cost of RE procurement remains the key deciding factor for many supply chain partners.

Scope 1

Shifting away from natural gas with electrification, renewable fuels and energy efficiency solutions



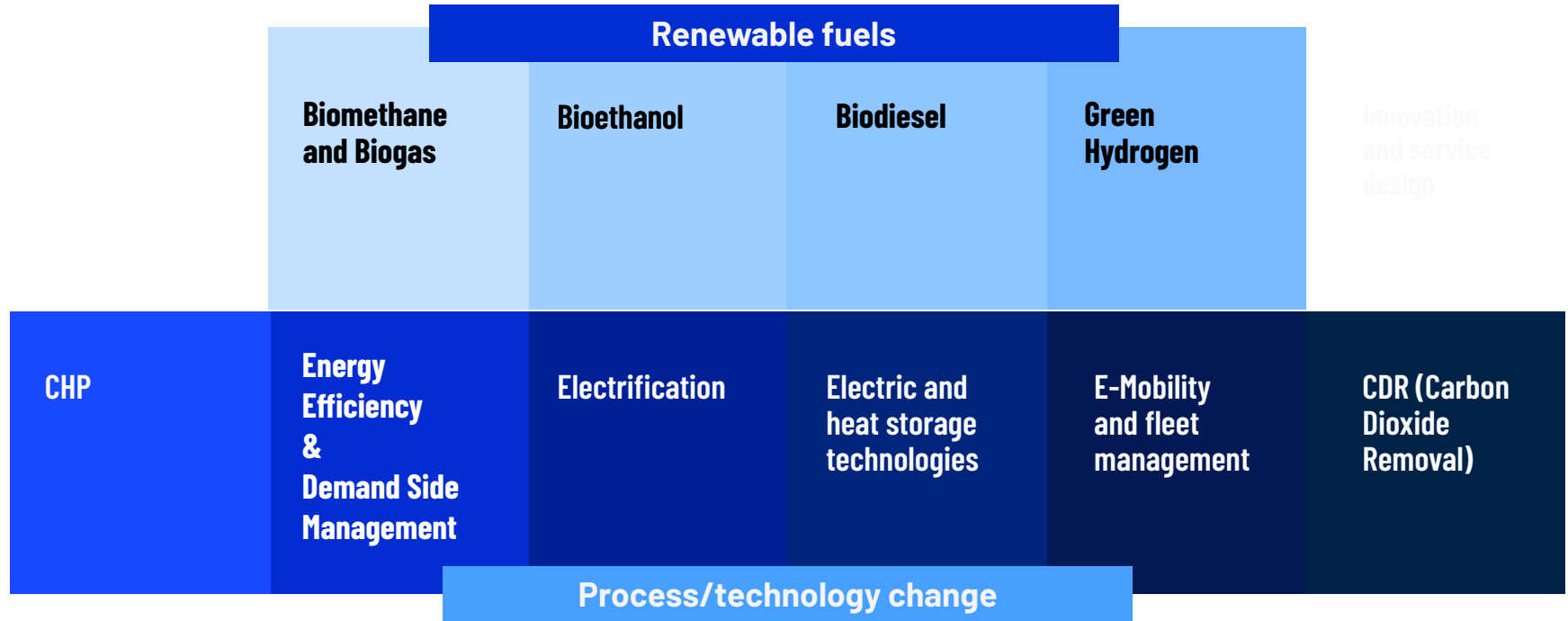
Natural gas consumption will need to reduce ~35% by 2050 to meet climate targets



Electrification to grow with 9% CAGR by 2030
Renewable fuels consumption to increase 10x by 2050
Energy efficiency to ramp up > 4% annually by 2030

Scope 1 interventions

The attractiveness of renewable Scope 1 interventions are industry, market and site dependent. Therefore it's important to consider the location-specific characteristics of each renewable energy alternative for the creation of your strategy.



Q & A



Our speakers



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