Acceleration pathways

post COP28

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Above and beyond **COP28**

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COP28 ended with positive outcomes: a consensus to **triple renewables and double energy efficiency** all the while transitioning away from fossil fuels, as well as more funding for loss and damage compensation, climate innovation, cross-border and inter-generational collaboration - overall contributing to **sustainable social and economic development**.

That said, I was already very much energized by the never-seen before mobilization of thousands of **companies, start-ups, individuals and leaders**, dreamers and do-ers teaming up in parallel of negotiations. On the ground and online, our purpose was to share experiences, expertise, ideas and concrete solutions **to accelerate action for a faster and fairer transition**.

Impact alliances keep growing from our **collective intelligence and power to act**, to decarbonize our products, services and processes; to build the infrastructure for sustainable energy and way of life; to include everyone, from cities to rural areas and across value chains on the journey.

It's with a triple sense of urgency, optimism and commitment, that I would like to share **3 concrete acceleration pathways** we can embark on, right now.

1. We have to deploy existing energy-demand technologies to effectively unleash sustainable (and profitable) outcomes on the very short-term – all the while continuing to work on the long-haul energy supply decarbonization efforts.
2. We must prepare our grids, buildings, data centers, industries and supply chains to welcome more renewables, more automation and electrification – enabled by digitization and data at the core.
3. We need to enable everyone to contribute in these massive undertakings ahead, with the right values and skills – those that will empower ourselves, our people, partners and youth to help deliver on all of the above.

Our actions do not connect only in meaning. They connect on impact. Not in 2050. Not in 2030, but today.
Lots to do, no time to waste. Let's make an impact, together.

Doubling the rate of energy efficiency by 2030

COP28 key take aways

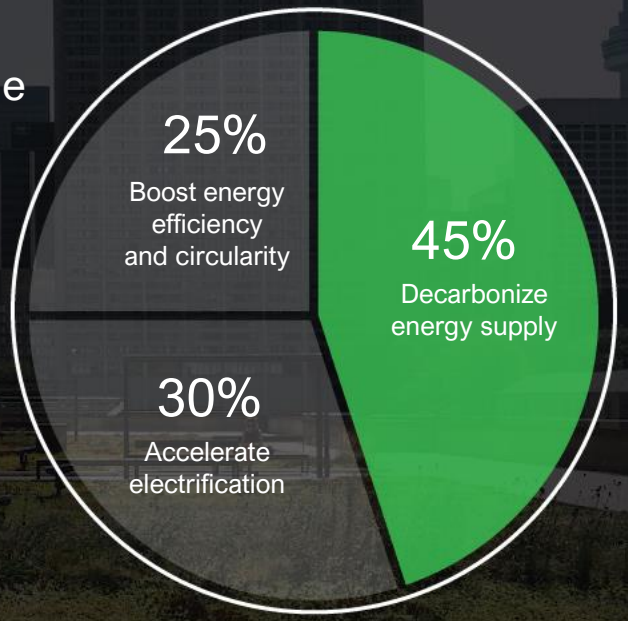
- COP28 was marked by the publication of the Global Stocktake, a comprehensive evaluation of progress against climate goals with the signing of the UAE consensus on December 13, a plan to close gaps with the overarching aim to keep the global temperature limit of 1.5°C within reach.
- In this historical agreement on the stocktake, Parties are called to act for a "deep, rapid and sustained reduction in GHG emissions in line with 1.5 °C pathways" in particular the urge to double the global average annual rate of energy efficiency improvements by 2030.
- This call to action was initially part of the Global Renewables and Energy Efficiency Pledge released on December 2, where 123 countries committed to collectively doubling the rate from around 2% to over 4% annually until 2030.
- The pledge is also in line with the Global Decarbonization Accelerator (GDA) which outlines a comprehensive plan for system wide change, addressing the demand and the supply of energy at the same time.
- On December 6, the Buildings Breakthrough initiative was also announced with 28 countries to date, aligned to an affirmed ambition to enable near-zero emissions and resilient buildings by 2030, with a focus on energy efficiency goals.

Accelerating the adoption of energy efficient solutions

With solutions that exist today

Energy efficiency at the core of our impact today and tomorrow

We can save 10-15Gt of CO_2 emissions annually



Source: Schneider Electric™ Sustainability Research Institute

2/3 Energy is either lost or wasted. Only 1/3 energy goes to end users.

30% Energy savings in buildings deliver ROI within ~5 years

70% CO_2 emissions reduction can be achieved using existing technologies

Buildings
Technologies available today (heating electrification, active energy efficiency solutions have a potential to lower carbon emissions by 2030, while generating up to 70% energy savings for building dwellers.

Industry
Automation and digital tools can optimize the processes, productivity, performance, and energy usage. Using a combination of such tools can result in 20% reduction in electrical, instrument, and control CapEx and 10% improvement in process energy usage.

Mobility
The bulk of energy & CO2 reduction comes from modal shifts (TaaS, autonomous vehicles, public transport), with electrification and efficiency playing a complementary role (3x efficiency on EVs).

Tripling renewables and nuclear energy capacity

COP28 key take aways

The COP28 consensus was also marked by the commitment to meet the need for three times more renewable energy capacity (at least 11,000 GWh) by 2030 to limit warming to 1.5°C.

On top of the Global Renewables and Energy Efficiency Pledge and Global Decarbonization Accelerator (GDA) initiatives, pledges - such as the UAE Hydrogen Declaration of Intent, with 39 countries endorsing a global hydrogen certification standard and the call of 22 countries to support tripling nuclear energy capacity globally by 2050 – all aim to achieve that.

With a notable step forward in the alignment to work together towards the transitioning of fossil fuels out of the energy supply side, arises the question of readiness - how to prepare our grids, buildings, industries and life to unlock the full potential of a renewables landscape?

Anticipating the needs of a sustainable energy landscape

With the transformation of energy demand

Building

Transport

Industry

2050. Who would have imagined… in 2020?

16,000TWh of Distributed Generation 100% Digital	**-93%** emissions	70% heat pumps 50% commercial footprint optimization	• Lower costs • Larger housing • More comfort • New urban forms
70% BEVs Up to 80% autonomous	**-83%** emissions	50%+ travel optimization (PKM) 2x more rail 2x less air	• Lower costs • Less pollution • Less congestion • Convenience
Up to 30% more efficient 50% consumer goods thru additive manuf.	**-84%** emissions	70% recycling rates Flat demand cement + steel	Customized, accessible and affordable goods • Productivity • Decoupled resource / growth

A modern and decarbonized economy

- **Net-Zero by 2050:** 50% of emissions reduction from transformations in consumption
- **Highly efficient economy**: -15% final energy demand vs 2018
- **Decarbonized supply:** ~90% renewable energies in power generation mix (vs 25% in 2018)

Speed up to get to zero in time

Disrupt the Inertia
- Build right from the start: buildings, vehicles, industrial facilities, infrastructure
- Accelerate digitalization, service and circular models

Repair the existing
- 10x on renovation rates
- Phase out fossil fuels

Build up the 21st century energy backbone(infrastructure)
- A digitized and decentralized grid
- Grid as a platform
- Electricity market reforms
- Key focus on new economies

Source: Schneider Electric™ Sustainability Research Institute

Anticipating the needs of a sustainable energy landscape

With the transformation of energy demand

6x More electricity will be generated from solar and wind by 2040

2x Increase in power consumption of data centers by 2028 due to increased digitization, including growth in the use of Artificial Intelligence

Microgrid systems
Integrated into facilities can optimize energy generation, storage, and consumption alongside the grid.

Power Purchase Agreements
(PPAs) can replace carbon-based energy and control energy costs.

Virtual PPAs
allow purchasing renewable energy from other areas for the lowest cost.

Pooling electricity demand
by organizations for greater buying power and leverage, particularly when reducing supplier emissions.

Bridging sustainability and progress for all

COP28 key take aways

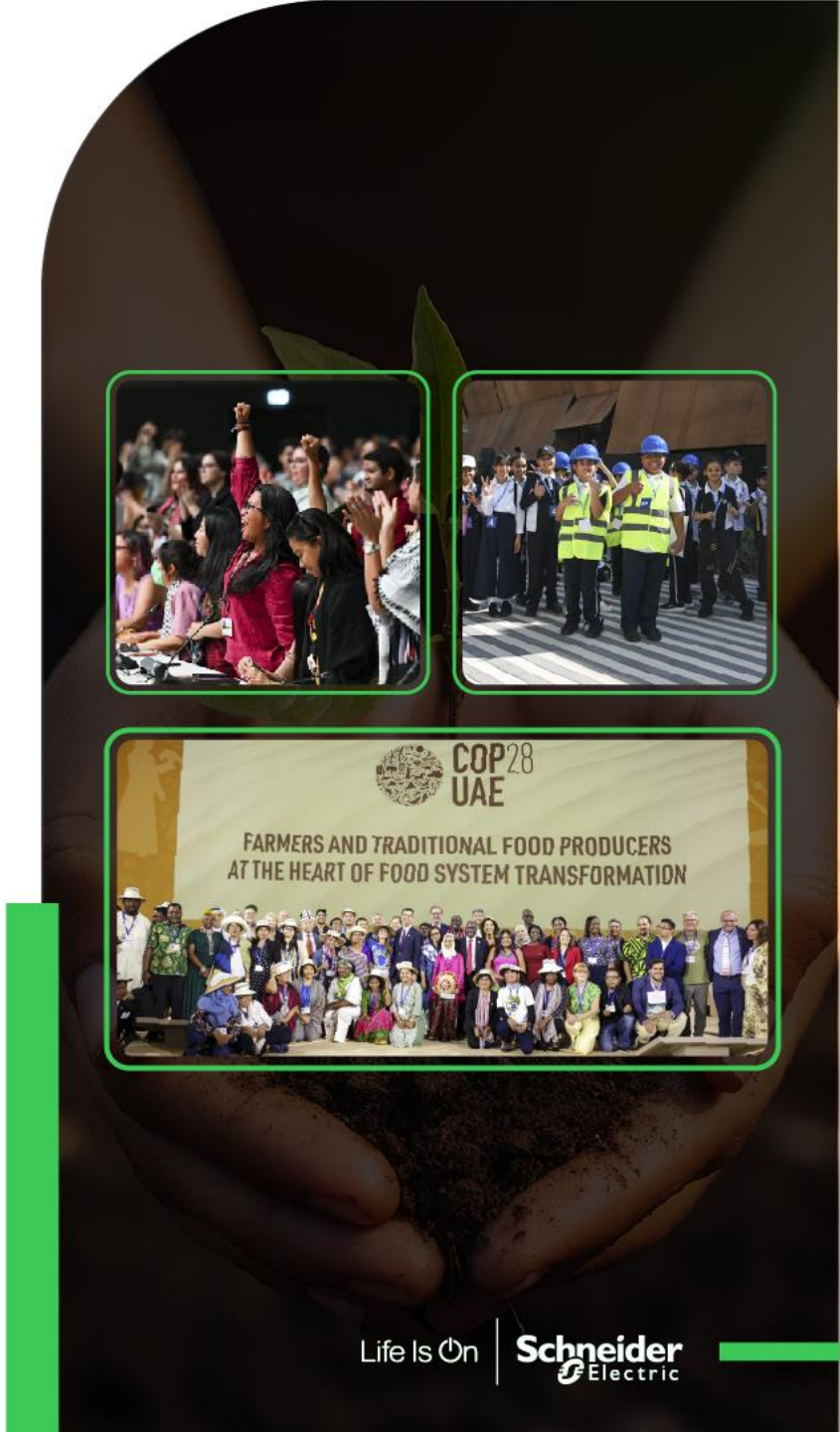
- Beyond unprecedented commitments on concerted climate action, COP28 encompassed a number of advancements to bring along more regions, communities and people in the journey ahead.

- Starting with the establishment of the Loss and Damage Fund, hosted by World Bank for the coming 4 years in support to the most vulnerable countries which will be majorly impacted by climate change.

- Additionally, the International Youth Climate Program and the Youth Climate Champion were introduced to amplify voices of people under 35, with here again an emphasis on empowering youth from the most vulnerable communities.

- In the Gender-Responsive Just Transitions & Climate Action Partnership launched and endorsed by over 60 countries, contributors aligned to make progress in ways of inclusion.

- Finally, considering that 56% of global population lives in rural area, the Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action signed by over 130 countries will help adapt and transform food systems land use targets in Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) by 2025.



Empowering and enabling ecosystem stakeholders

With wide-spread engagement initiatives

733 Million People still lack access to electricity. Limiting education, jobs and well-being opportunities

80% Of those live in rural areas

2.8 M Electricians gap across regions

139 Million New jobs to be created out of the energy transition

Upskilling
Employees, partners, youth to be part of the solution, especially with digital and energy management skill that are crucial for the future.

Inclusion
Promoting diversity and gender inclusivity, for equitable participation and leadership from education to professional roles.

Supply chain engagement
Supporting supply partners across the entire value chain to embark on a sustainability journey with concrete skills and programs of engagement that make a difference.

Local impact
Empowering each and every individual to understand what is at stake and can be done at work, at home and with other, in order to act and contribute actively to our common ambition.

Where to next?

Climate action collaboration opportunities

World Economic Forum

Davos, Switzerland
Jan 15-19

The 54th meeting of the World Economic Forum gathering world leaders to drive trust, consistency accountability

CERA Week

Houston, USA
Mar 18-22

An executive conference to discuss ideas and solutions for multidimensional transformation of the global energy system

Hannover Messe

Hannover, Germany
Apr 22-26

An executive conference to discuss ideas and solutions to energize a sustainable industry

International Energy Agency

Nairobi, Kenya
May 21-23

An energy efficiency conference bringing together public and private sector leaders to discuss policies and measures needed to address the impact of the energy crisis

NYC Climate Week

New York, USA
Sep 22-29

A week-long conference bringing world leaders to provide a blueprint for a low-carbon economy and the action and leadership it will require

Biodiversity COP16

Colombia,
Oct 21 – Nov 1

A Conference of the Parties to review global alignment, and action for nature conservation. COP16 will focus on reviewing the implementation of the Kunming-Montreal Global Biodiversity Framework, also known as the 30x30 Framework

Climate COP29

Baku, Azerbaijan
Nov 11-22

A Conference of the Parties to review global alignment, and action on climate change. At COP29 governments are expected to establish a new climate finance goal, reflecting the scale and urgency of the climate challenge

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