RE 100 THE CLIMATE GROUP



ANNUAL REPORT

Going 100% renewable: how committed companies are demanding a **faster market response**

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RE100 PROGRESS AND INSIGHTS DECEMBER 2019

FOREWORD

Leading corporations are increasingly using their purchasing power and influence to transform electricity systems at scale. 2019 marked a change for the RE100 initiative – led by The Climate Group in partnership with CDP – for companies committed to 100% renewable power.

MAKING PROGRESS

In its biggest year yet, **RE100 grew by over a third**, surpassing the 200-member milestone. If they were a country, RE100 members would be the 21st largest electricity consumer in the world. RE100 has continued to expand geographically, with 44% of new joiners in 2019 from across the Asia Pacific.

What matters most, of course, is the speed at which companies make progress. 2028 is the average target date for RE100 members to achieve 100% renewable electricity. **One in three are already over 75% toward their goal**, and one in two are being driven by cost savings.

But despite falling costs¹, renewables are still marginal in a small number of countries where companies are struggling to get access. Without decisive action, these countries risk losing out on billions of US dollars in investment from RE100 companies. And without decarbonized grids, the planet remains exposed to catastrophic climate change.



THE CLIMATE GROUP

In partnership with



DRIVING IMPACT

By engaging with governments and energy suppliers, leading members are starting to overcome policy challenges and technical barriers to source renewable electricity. They are **creating new routes for others to follow** - and 44% are now engaging suppliers.

Over the last year, we have been working closely with members to amplify their demand, **developing new partnerships** in the Taiwanese market and in Australia. The leadership of members coupled with the geographic expansion of RE100 is triggering broader system change – such as in the Republic of Korea where a new mechanism is being introduced by the Government to enable companies to meet their RE100 goals.

THE QUESTION IS, HOW DO WE GO FASTER?

2020 marks the beginning of the Climate Decade - ten years to halve greenhouse gas (GHG) emissions and put the world on track to reach net zero by 2050. Our members are playing their part and aim to scale up their leadership in the coming year.

Through RE100, they have a platform to do so. We will be making sure that their voices are heard loud and clear by governments and the energy sector around the world, who will need to rapidly respond to the increasing demand for clean and affordable electricity.

KEY FINDINGS

Company data collected through the 2019 RE100 reporting cycle, carried out by CDP, reveals:

HIGH AMBITION

2028 is the average target year for member companies to reach 100% renewable electricity, and 3 in 4 are targeting 2030 at the latest.



FAST PROGRESS

1 in 3 members are now >75% renewable and >30 have reached their 100% goals. 1 in 2 have experienced cost savings as a result.



IMPACTFUL LEADERSHIP

20220 44% are already influencing suppliers on renewable electricity. 1 in 2 plan to engage stakeholders (such as policy makers or utilities) on renewables by 2020.



Figures in this report are based on 211 members at the time of writing. Sample sizes differ for each topic area, as not all companies provided detailed answers to all questions. A breakdown of each data point is available in the annex, available at <u>RE100.org</u>

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Cover photo:AEON

SCALE OF DEMAND

If RE100 members were a country, they would be the $21^{\rm st}$ largest electricity consumer in the world (in terawatt-hours or TWh, $2018)^2$

0	CHINA	6,349
2	US	4,099
3	INDIA	1,269
	JAPAN	1,028
	UK	327
 9	AUSTRALIA	244
20	INDONESIA	235
2)	RE 100	228
22	SOUTH AFRICA	227
		TWh/yr

GEOGRAPHIC EXPANSION

In the last year, RE100 membership has **grown by over a third**, with over 40% of new joiners from the **Asia Pacific**. >40%



O SCALE, AMBITION AND PROGRESS

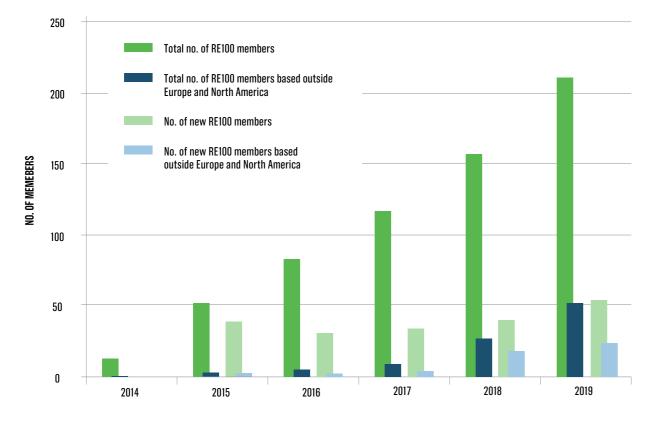
1. A GROWING AND DIVERSIFYING MEMBERSHIP

Among the world's most influential companies, clean energy is increasingly becoming the norm. RE100 now brings together more than 200 multinationals committed to 100% renewable power. 56 have joined since the last annual report - our biggest growth year to date - taking the total membership to 211.

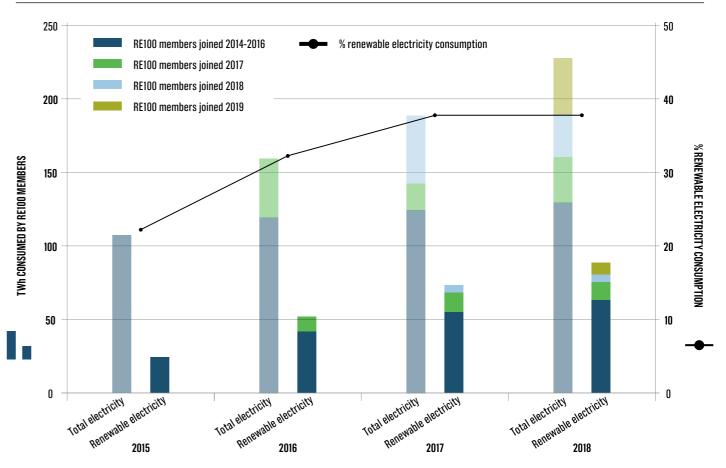
The collective electricity consumption of our members is on par with a medium sized country They consumed 228 TWh/yr in 2018, comparable to Indonesia or South Africa³. That's an extra 40 TWh/vr in demand for clean energy compared to the previous year.

RE100 has continued to expand to new frontiers, with 44% of the growth in the Asia Pacific region. Japan is now home to the third largest number of members (28) - rapidly catching up with the UK (37). Australia grew from 1 to 8 members, including all of the country's major banks. Two more companies joined from mainland China - the first to do so since the Paris Agreement was signed.

> GEOGRAPHICAL BREAKDOWN OF RE100 MEMBERSHIP OVER TIME



> PROGRESS OF RE100 MEMBERS TOWARD 100% RENEWABLE ELECTRICITY



2. CONTINUOUS PROGRESS TOWARD TARGETS

RE100 members sourced 87 TWh/yr of renewable electricity in 2018 - up from 72 TWh/yr the year before. This means that 38% of their total electricity usage comes from renewables. This is a similar proportion to the year before, even though more than 50 companies have joined the initiative in the meantime - many of them just starting out on their renewable energy journey.

Companies that were members last year⁴ have increased their share of renewable electricity sourcing by four points to 42% - showing that they are walking the talk and progressing at pace toward their commitments.

The average goal for reaching 100% renewable electricity is 2028, with over three quarters targeting 2030 at the latest. This level of ambition will help the world

to halve GHG emissions reductions over the next decade to meet the objectives of the Paris Agreement. In addition, nine members have declared that over the next

SINCE JOINING RE100 WE'VE PROCURED MORE AND MORE RENEWABLE ELECTRICITY FOR OUR **GLOBAL PORTFOLIO AND WE'RE NOW PROUD TO HAVE ACHIEVED OUR 100% GOAL. BUSINESS** HAS A VITAL ROLE TO PLAY IN DRIVING THE **CLEAN ECONOMY - RE100 HAS PROVEN THAT COLLABORATION MOVES THE NEEDLE.**

Nicola Acutt. VP of Sustainability Strategy, VMWare

18 months, they will bring forward their target date, with another 15 planning to adopt ambitious interim targets.

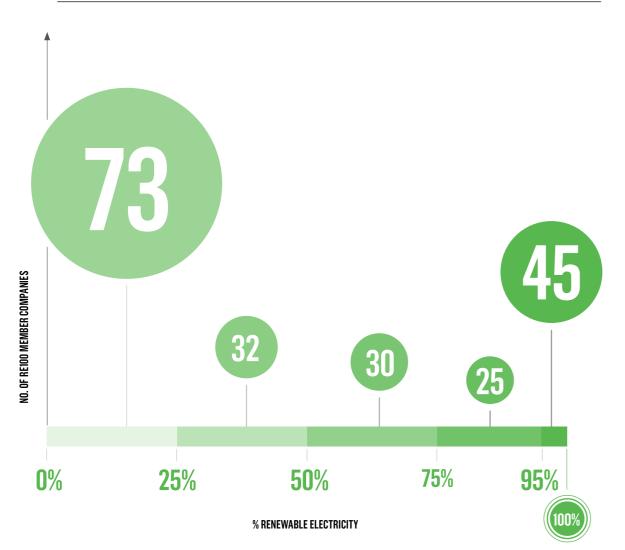
In 2018, one in three members were already sourcing over 75% renewable electricity, and almost half of those over 50%. More than 30 members met their 100% goals. In 2019, two additional members, VMWare and Organic Valley, also announced that they would do so by the end of 2019.

Four members - BMW, Dentsu Aegis Network, Facebook and Iron

Mountain - surpassed ambitious interim targets - putting them on the right track to achieve their 100% goals.

Nine companies made significant progress toward their 100% goals, seeing their percentage of renewable electricity increase by over 20 points compared to the year before. Lyft went from 0% to 44% renewable by switching to a renewable electricity supplier on joining RE100 in September 2018. Iron Mountain (+39%) and Facebook (+24%) also made impressive progress thanks to new power purchase agreements (PPAs) with large scale renewable energy projects.

> MEMBERS' PROGRESS TOWARD RE100 GOAL (2018)





CASE STUDY: IRON MOUNTAIN

PROGRESSING AT SCALE IN AN IMPACTFUL WAY

Storage and information management services company, Iron Mountain, has a goal to achieve 100% renewable electricity by 2050 and was already sourcing 69% in 2018, up by 39% in one year.

As well as reduced GHG emissions, benefits include lower energy bills and better cost stability.

"Our 100% renewable electricity goal is key to our strategy for reducing and stabilizing long term energy expense and reducing our exposure to fossil fuel cost volatility." - Sarah Abrams, Senior VP, Global Real Estate, Iron Mountain

Over the past five years, the company has built a portfolio of renewable energy solutions and contracts including owning on-site solar systems, executing solar PPAs, utilizing utility green power tariffs and virtual power purchase agreements (VPPA) for large scale wind farms.

In 2019, the UK, Ireland, the Netherlands and Belgium became the first company territories to achieve 100% renewable electricity, and in the US, Iron Mountain has become one of the largest purchasers of renewable power.

Today, Iron Mountain's strategy goes beyond reaching 100% renewable

CHAPTER 01

A SECRET INGREDIENT **TO MAKING PROGRESS FAST HAS BEEN EXTERNAL COLLABORATION. WORKING** WITH PEERS, NGOS, UTILITY **COMPANIES AND EVEN OUR COMPETITORS HAS HELPED US GO FURTHER AND FASTER THAN** WE COULD HAVE BY OURSELVES.

Kevin Hagen, VP of Environment, Social, Governance Strategy, Iron Mountain



electricity. The company is working on addressing the challenges of achieving 24/7 local renewable supply in ways that help deliver a greener, more cost-effective grid for everyone.

In a major renewable energy innovation for the industry, Iron Mountain has introduced a Green Power Pass, allowing the company to "pass through" the benefits of renewable electricity to its customers. The protocol means data center users can report GHG emissions reduction and renewable electricity use based on Iron Mountain's supply agreements - increasing market demand for renewable energy.

INCREASING **D2 INCREASING LEADERSHIP**

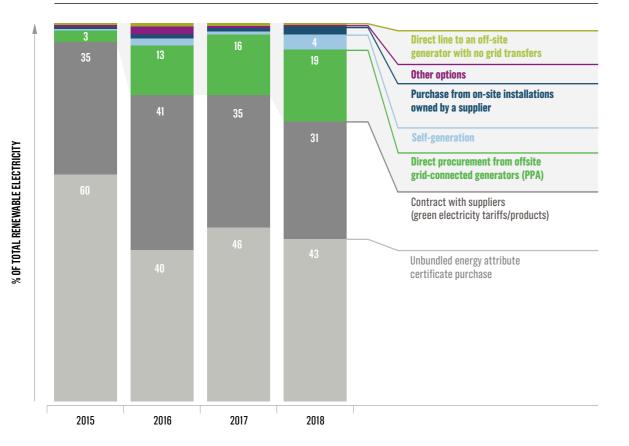
Beyond their individual commitments to 100% renewable electricity, RE100 members have been innovating, collaborating, and constantly challenging themselves and each other to accelerate the clean energy transition.

1. TRANSFORMING ELECTRICITY GRIDS

In 2018, RE100 members continued to turn their renewable electricity sourcing strategies toward approaches that have the highest direct impact on grid decarbonization.

It was once again a record-breaking year for PPAs - a mechanism through which corporate buyers contract directly with a project developer, usually enabling renewable energy capacity to be added to the grid.

PPAs accounted for 19% of the renewable power sourced by members in 2018 (up from 16% the previous year). This amounts to 14 TWh of electricity consumption.



> APPROACHES TO RENEWABLE ELECTRICITY SOURCING BY RE100 MEMBERS OVER TIME

CASE STUDY: SIGNIFY

DRIVING INNOVATIVE SOLUTIONS **IN POLAND**

Signify, the world leader in connected LED lighting, has set an ambitious goal to reach 100% renewable electricity by the end of 2020. Having already achieved 89% in 2018, the company is now addressing more challenging geographies to reach its RE100 goal.

In 2019, Signify signed a 10-year VPPA for electricity from Kisielice wind farm in Poland. The electricity will power four Signify factories and several offices in the country - which currently account for over 25% of Signify's global electricity consumption.

With a dependence on coal for 80% of its electricity use, Poland remains Europe's most polluting country. Signify is actively growing renewable energy capacity on the local grid, accelerating the clean energy transition.

The VPPA will bring tangible business benefits. It will reduce Signify's annual carbon footprint by 73 kt CO2e - the equivalent of taking more than 23,000 cars off the road. Additionally, Signify expects to make cost savings, as it pays well below the fossil fuel equivalent.

"We have had a lot of positive feedback from colleagues in operations and accounting. The PPA created a lot of awareness internally and has strengthened people's passion for the company."

But it wasn't always plain sailing.

Two years prior, the Polish government had launched a tender for wind energy, offering competitive rates. This attracted developers who then began to quote Signify higher prices.

Signify held firm on its offer, and eventually found project opportunities within the country, also overcoming challenges around regulatory uncertainty and double-counting.

"It's a wonderful feeling that we stuck with it and followed it through. I hope it will pave the way for one other PPA - maybe in China - so that most of our loads are in long-term commitments."

Robbert knows Signify is sending an important market demand signal that could help unlock opportunities

CHAPTER 02

WE BECAME AN EARLY MEMBER OF RE100 TO SWITCH TO RENEWABLE **ELECTRICITY – SO THAT'S ENOUGH REASON IN ITSELF TO BE A PIONEER.**

Robbert Slooten, Global Sustainability Program Manager, Signify

Wind turbine in Poland

for other companies, and wants to see more leaders following suit.

"Developers should be aware that energy off-takers are willing to commit - until then it's a chicken and egg situation. RE100 can collect and share best practice and help members to hear each other's ideas."

Signify is also encouraging its suppliers to switch to renewable electricity. The company has been setting expectations around annual reporting and last year, ran a pilot around renewable electricity certificates, to get suppliers started on the journey.

"Sourcing renewable electricity shouldn't be difficult. It should be as easy as buying a pair of sneakers online."

Their popularity reflects a global trend, with companies signing contracts totalling 13.4 GW of renewable capacity globally in 2018, according to BloombergNEF⁵. These new projects will come online over the next few years, and should see more renewable electricity being sourced this way by RE100 members.

In 2018, members also generated more of the renewable electricity they consumed - over 3 TWh in 2018 (4% of the total), with 104 disclosing companies using this approach. In addition, almost 2 TWh of renewable electricity was purchased from on-site installations owned by a supplier (2% of the total).

Taken together, approaches that directly enable or finance new renewable energy projects account for over a guarter of all the renewable electricity consumed by RE100 members in 2018. They are **win-win solutions for businesses**: in addition to delivering costs savings, generating new revenues or providing certainty over long term costs, they also bring private sector funding to project developers and equipment providers.

Ingka Group and Google announced that they had invested US\$2.75 billion and US\$7 billion respectively in on-site or off-site renewable electricity projects. In total, 43 companies

1.6 GW

THE CUMULATIVE CAPACITY OF GOOGLE'S LATEST 18 RENEWABLE ELECTRICITY DEALS SIGNED IN SEPTEMBER 2019 – TAKING **ITS GLOBAL PORTFOLIO TO OVER 5.4 GW**

reported investing over US\$140 million in low carbon energy projects in 2018 (mostly solar PV installations).

Unbundled energy attribute certificates nevertheless remained the preferred approach for RE100 members in 2018 (43% of all renewable power consumed), followed by contracts with suppliers (or green electricity products, accounting for 31% of the total). Those strategies have a key role in helping companies meet their 100% targets while sending a strong demand signal to markets - indirectly incentivizing key stakeholders in the energy sector to accelerate renewable power deployment.

The trend toward direct sourcing methods is likely to become more apparent in the coming years: 65% of responding RE100 members are planning to adopt impactful procurement methods by the end of 2020, with members considering signing PPAs, developing onsite projects and/or self-generation, or even supporting the deployment of less mature technologies such as hydrogen or biogas.

2. MAINSTREAMING RENEWABLES

Companies are using their voice and the power of collective action through platforms like RE100 to transform policies and markets at scale. The Climate Group and CDP have been supporting RE100 members to engage with policy makers to advocate policy frameworks more favorable to renewables.

Members are also working with utilities to design new renewable electricity products that would be made available to all. But there is potential to do much more - thankfully, 49% of responding members are planning to **partner** with and influence stakeholders by 2020 to help create markets for renewables.

Members are also demonstrating leadership through their value chains. 44% of responding companies were engaging with their suppliers in 2018 (up from 36% the year before), with an additional 17% planning to do so in the next two years. As well as encouraging more companies to switch to renewable power, this can also help to bring the movement to new geographies and new types of companies.

Innovation is key to unlocking progress across supply chains and RE100 members are once again leading the way. HSBC and Walmart

collaborated to launch a new program offering improved financing rates to global suppliers pegged to sustainability performance. Working with suppliers on renewable electricity is a cost-efficient way for a company to reduce their scope 3 GHG emissions.

Members are also engaging with stakeholders at the other end of their value chain - consumers and business customers. By being a responsible company, they can **develop a competitive** advantage on their peers. Putting sustainability at the centre of their communications is also a great way to mainstream renewables to a broader audience.

"

CASE STUDY: PHILIPS

LEADING **BY EXAMPLE AT SPEED**

Hospitals, health services and medical supply chains across the world's major economies generate around 4% of global CO2 emissions - more than aviation. As a leader in healthcare technology, and an early-mover on renewable energy, Philips finds itself well positioned to respond quickly to growing customer expectations around climate action.

At the United Nations Climate Change Conference COP21 in 2015, Philips pledged to play its part in fighting climate change. The company committed to becoming carbon neutral in its own operations and to sourcing 100% renewable electricity by 2020.

Philips has increased its global renewable electricity share from 79% in 2017 to 90% in 2018, and is well on track to achieve 100% by 2020. As a result, the company has seen numerous business benefits, such as improved internal efficiency.



Philips has invested in renewable electricity projects that deliver better outcomes at lower cost - achieving a positive local impact while boosting the bottom line. The company has signed PPAs in the US and the Netherlands, and implemented onsite solar generation projects in India and China, where air pollution has become a health crisis.

EVERY TIME ONE OF OUR SUPPLIERS JOINS US IN OUR EFFORTS TO ADDRESS CLIMATE CHANGE, WE MOVE CLOSER TO A BETTER FUTURE FOR THE **NEXT GENERATION. WE'VE MADE IT A PRIORITY** TO HOLD OUR SUPPLIERS ACCOUNTABLE TO THE SAME ENVIRONMENTAL STANDARDS WE **OBSERVE AND HOPE THAT OUR COLLABORATION** WILL SHOW OTHERS WHAT IS POSSIBLE.

Lisa Jackson, VP, Environment, Policy and Social Initiatives, Apple



SWITCHING TO 100% **RENEWABLE ELECTRICITY** DRIVES LATERAL THINKING. **COMBINING MANY PEOPLE FROM DIFFERENT DISCIPLINES AROUND** A COMMON GOAL.

Robert Metzke, Global Head Sustainability and Chief of Staff Innovation & Strategy, Philips



WE WANTED TO GIVE CONSUMERS A CHOICE. WITH 41 MILLION **BUDWEISERS BEING SOLD AROUND THE WORLD EVERY DAY** - WE THOUGHT, IMAGINE THE **CONVERSATION WE COULD START.**

Ezgi Barcenas. Global VP. Sustainability. AB InBev

Thunder Ranch Wind Farm in Oklahoma

CASE STUDY: AB INBEV **EMPOWERING CONSUMERS TO TAKE CLIMATE ACTION**

Anheuser-Busch InBev (AB InBev) is the world's largest brewer. With an annual electricity demand of over 6 TWh, it is also set to become the world's largest corporate buyer of renewables in the consumer goods sector - targeting 100% purchased renewable electricity by 2025.

One of its most recognizable brands is Budweiser. Research by the company showed consumers felt disempowered to take climate action, and Budweiser seized the opportunity to respond.

In 2018, Budweiser announced that it would use 100% renewable electricity to brew its beers around the world, starting in the US. To show consumers when this milestone is reached in each country, a new renewable electricity symbol is added to Budweiser packaging.

"We wanted to give consumers a choice. With 41 million Budweisers being sold around the world every

day - we thought, imagine the conversation we could start." - Ezgi Barcenas, Global VP, Sustainability, AB InBev

In 2019, Budweiser went further still, putting renewable energy at the heart of an advertisement screened during the Superbowl. AB InBev also donated 100% renewable electricity to power Atlanta, the city that hosted the Superbowl, for a week.

Budweiser received great feedback from consumers who saw the brand as high-quality, innovative and progressive with the advertisement receiving the highest positive sentiment of all commercials broadcast during the event.

"Championing renewable energy has gotten our brand team really excited. Our success speaks to their ability as story tellers and shows the power of our climate action strategy."

Ezgi is guick to add that consumers are skeptical and want to see companies walk the talk: brand efforts must be supported by corporate action.

Today, 50% of AB InBev's global renewable electricity volume is under contract, and the company is on track to reach 70% under contract by 2020. Importantly, AB InBev is committed to reaching its goal by adding renewable capacity in all of its markets around the world. This has already been realized through PPAs in the US, Australia, Argentina, China, India, Mexico, Brazil and the UK.

AB InBev also aims to create momentum around the world by encouraging peer companies to follow its lead.

"Consumers, employees and investors are all looking for companies to step up with measurable commitments and drive impact in a meaningful way."

O3 THE DRIVERS

Individual company commitments to source 100% renewable power are driven by a multitude of factors, depending on sector, size, location, and more.

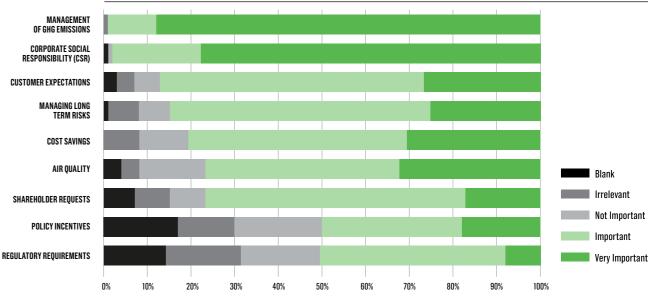
Management of GHG emissions and Corporate Social Responsibility (CSR) remain the main drivers for companies to join RE100 and switch to renewable electricity - they are 'important' or 'very important' for almost all responding members.

But in 2019, a year characterized by public mobilization and investor action on climate change, 87% of responding RE100 members also cite customer expectations as an 'important' or 'very important' driver, and 76% say the same of shareholder requests.

INVEST TIME WITH YOUR STAKEHOLDERS TO TALK ABOUT CLIMATE CHANGE – IT REALLY HELPS YOU TO UNDERSTAND EXPECTATIONS.

Robert Metzke, Global Head Sustainability and Chief of Staff Innovation & Strategy, Philips

> DRIVERS FOR RENEWABLE ELECTRICITY SOURCING (% OF RESPONDENTS)





Signing up to RE100 is a credible and ambitious way for companies to show that they take stakeholders' expectations seriously, securing their licence to operate and accessing required financing.

This translates into clear benefits for the companies that decide to lead on renewable electricity. Over a third of responding members identified customer retention as a co-benefit of progressing toward their RE100 commitment both consumers and business customers. Even more strikingly, over 50% identified benefits in terms of employee satisfaction and staff retention - helping members to attract the best talent and grow their business.

The compelling business case remains a critical driver. Adopting an ambitious renewable electricity strategy is seen as a way to manage long-term risk and increase resilience to regulation and price volatility. Cost savings are also important - experienced in 2018 by one in two responding members progressing toward their RE100 target, and an additional 10% of respondents are anticipating them.



THE TALENT ADOBE WISHES TO **RECRUIT AND RETAIN EXPECTS US TO SET MEANINGFUL CLIMATE** GOALS AND WORK TO MEET THEM. **OUR RE100 COMMITMENT IS** AMONG THE TOP GOALS FOR THIS.

Vince Digneo, Sustainability Strategist, Adobe

Adobe employees collaborate at the company's San Jose adquarters

CASE STUDY: ADOBE **ALIGNING WITH EMPLOYEE EXPECTATIONS**

US software company, Adobe, grew its revenue by 24% in fiscal year 2018 while reducing absolute emissions by 9%, showing that 'going green' does not compromise the bottom line.

In fact, making the commitment to switch to 100% renewable electricity by 2035 has brought multiple benefits for Adobe, including increased competitiveness

"The talent Adobe wishes to recruit and retain expects us to set meaningful climate goals and work to meet them. Our RE100 commitment is among the top goals for this." - Vince Digneo, Sustainability Strategist, Adobe

In June 2019, Adobe broke ground on its newest building in San Jose, California. During the planning phase, Vince observed widespread interest in sustainability among employees, and pushed for the campus to be fossil fuel free - powered with renewable electricity only.

Adobe's principal engineers put ideas together for how to avoid the use of natural gas, and the building will be all-electric upon completion in 2022.

"I knew the city of San Jose and the State of California were looking at how to accelerate this kind of thing. San Jose was thrilled when it was announced."

One of the ways in which Adobe retains the support of its employees is by choosing a meaningful approach to sustainability. The company has a strategy to decarbonize local grids, rather than offset the use of fossil fuels.

"Our employees want to see us take good action but not just among a flurry of other companies doing the same thing - it has to have meaningful impact."

Adobe is working to benefit local communities as it sources renewable electricity - increasing grid capacity and creating additional jobs across solar, wind and storage.

An example of this is its VPPA in Nebraska, for which Adobe partnered with Facebook to buy wind power. 320 MW of additional renewable energy has been added to the local grid.

"If we collaborate in this space, we all benefit. It's about Adobe being a good citizen in the communities it works in - a responsible business, growing responsibly."

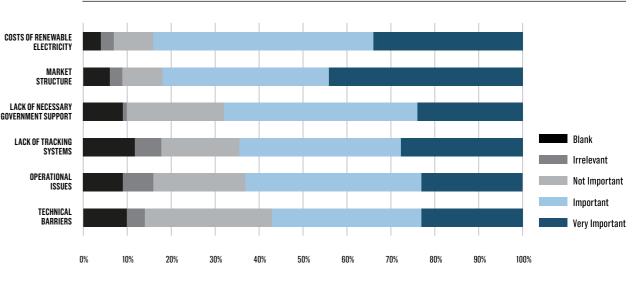
O4 THE BARRIERS

The significant progress made by RE100 members at the global level covers a variety of situations at the local level. Members' ability to progress in each geography where they operate is constrained by a number of internal factors (e.g. size of their load, ability to enter long-term agreements or to mobilize capital, etc.) and external factors (e.g. availability of suitable clean energy solutions, regulatory frameworks, etc.).

Responses provided by members show that external factors are the main barriers to progressing toward their RE100 commitments.

Costs of renewable electricity and market structures remain the main barriers faced by members. As technology costs are decreasing at a staggering rate - with renewables becoming the cheapest form of power generation in more countries - the role of policies and regulations in

> BARRIERS TO RENEWABLE ELECTRICITY SOURCING (% OF RESPONDENTS)



shaping the price difference between renewable and fossil-fuel electricity generation is critical.

Similarly, the structure of the energy market in some markets is a key barrier to progress. Countries with unfavourable policy frameworks for renewable electricity risk missing out on clear business opportunities.

RE100 members are working to address those barriers in their priority geographies, based on where they have operations and where those barriers are the most stringent.

The Chinese market has proven difficult to navigate for RE100 members due to regulatory complexities. In Russia, the lack of a credible tracking mechanism for renewable electricity has been a key barrier.

In Japan, options to source renewable electricity are limited. Energy attribute certificates are scarce and therefore expensive, while very few solutions for direct participation in energy

markets exist (due to limited opportunities for direct investments, regulatory barriers to corporate PPAs, etc.).

To overcome issues in Japan, 20 RE100 members (19 Japanese companies and Apple), supported by our regional delivery partner JCLP⁶, have asked the Government to raise their 2030 renewable electricity target from 22-24% to 50%⁷. The members compiled a list of recommendations to make renewables costcompetitive with other electricity sources (a trend observed in many other G20 countries).

According to IRENA, India produces some of the cheapest solar electricity in the world⁸. But RE100 members are struggling with a fragmented policy landscape, where key regulations differing from state to state, and uncertainty over various charges and taxes in the long-term. Through their membership of RE100, companies are aiming for closer cooperation with regulatory authorities and other key stakeholders in each state.

At European Union level, through the RE-Source platform (of which RE100 is a founding partner), 11 RE100 members scrutinized the draft National Energy and Climate Plans submitted by member states, to make sure that they remove barriers to corporate renewable energy sourcing⁹.

In the Republic of Korea, citing RE100 as a reason to act, the Government introduced a new certification system to enable companies to buy and track renewables. CDP and local partner Kosif are working to ensure that the system

- 1. CHINA
- 2. RUSSIA

3. ARGENTINA

- 4. JAPAN
- 5. AUSTRALIA
- 6. INDIA
- 7. REPUBLIC OF KOREA
- 8. US

MOST CHALLENGING COUNTRIES FOR RENEWABLE ELECTRICITY SOURCING. ACCORDING TO RE100 MEMBERS

becomes fully compatible with RE100 Technical Criteria and ultimately enables members to make credible claims on their renewable electricity use.

Taiwanese authorities have also taken notice of the strong demand signal sent by RE100 members, and have acknowledged their role in driving renewable electricity uptake through supply chains. As a global manufacturing hub, they understand the need for clean energy if these businesses are to remain trusted partners of RE100 multinationals.



RE100 members forum, India

CASE STUDY: AFON

OVERCOMING BARRIERS AND ENGAGING POLICY MAKERS

Retail giant, AEON, RE100's largest Japanese member, has so far invested in on-site solar PV generation at its shopping centers to progress toward its 2050 RE100 goal - including through innovative on-site PPAs.

But even though they are relatively easy to develop and there is a strong business case, on-site solutions can only cover up to 20% of the sites' electricity consumption. Therefore, it is critical for AEON to be able to access affordable renewable power generated off-site.

"Direct access to the market and large scale offsite PPAs provide the most exciting business opportunities."- Takahiro Suzuki, General Manager, AEON.

But this too is not without challenge. The main barrier is the high cost of power transmission and distribution in Japan, which prevents companies from benefitting from the cost reductions observed globally for renewable energy technologies.

"The consequences of the deregulation of the power sector

initiated by the Government are still unclear, even though they should help to bring those costs down."

The grid requires much more investment, but the utilities that currently own it are often unwilling or unable to invest.

"We believe government leadership is needed in this area."

In June 2019, AEON joined forces with 19 other RE100 companies to call on the Government to raise its 2030 target

CHAPTER 04

On-site solar PV at Fujidera Shopping Center.

DIRECT ACCESS TO THE MARKET AND LARGE SCALE OFFSITE PPAS **PROVIDE THE MOST EXCITING** BUSINESS OPPORTUNITIES.

Takahiro Suzuki, General Manager, AEON

for renewable electricity consumption to 50% (up from 22-24%). They also asked for upgrades to the transmission and distribution network and to support the development of PPAs.

These actions would accelerate the growth of the market on the supply side and the emergence of new technologies beyond solar, e.g. offshore wind or geothermal. They would also enable companies to progress more guickly toward their RE100 goals in an impactful and cost-effective way.

05 LOOKING AHEAD

As the corporate movement on renewable electricity continues to expand, the impact of the RE100 initiative in accelerating the clean energy transition is only going to grow.

As members get closer to their target dates, more of them now need to clean up the electricity they use in the more challenging countries for renewable power sourcing. Led by The Climate Group in partnership with CDP, and supported by a growing set of regional delivery partners, RE100 will remain a trusted initiative for leading companies.

Many more businesses from different countries will join and commit to 100% renewable power. Their leadership will deepen as they choose impactful sourcing solutions, bring their suppliers on board and engage with policy makers and the energy sector.

By expanding into new regions in 2020, the initiative will amplify those commitments, and provide an essential platform for companies to collaborate to address technical barriers and help design suitable policy and market solutions.

2020 is the beginning of the Climate Decade ten years to halve global GHG emissions and put the world on track to achieve net zero emission by the middle of the century. The countries and the energy companies all along the value chain that fail to shift to renewables will be the first ones to pay the price.

The private sector faces the ultimate test to showcase leadership and seize opportunities now that advance the future clean economy.



REFERENCES

- 1. The global weighted-average cost of electricity from onshore wind and solar PV was declining by 13% year-on-year in 2018, according to IRENA, Renewable Power Generation Costs in 2018 <u>https://www.irena.org/-/</u> media/Files/IRENA/Agency/Publication/2019/May/IRENA_Renewable-Power-Generations-Costs-in-2018.pdf
- 2. International Energy Agency, Key World Energy Statistics 2019 https:// webstore.iea.org/key-world-energy-statistics-2019
- 3. International Energy Agency, Key World Energy Statistics 2019 https:// webstore.iea.org/key-world-energy-statistics-2019
- 4. RE100 Progress and Insights Annual Report, November 2018, Moving to truly global impact, http://media.virbcdn.com/files/ fd/868ace70d5d2f590-RE100ProgressandInsightsAnnualReportNovemb er2018.pdf
- 5. BloombergNEF, 29 January 2019, 'Corporate Clean Energy Buying Surged to New Record in 2018'
- 6. JCLP https://japan-clp.jp/en
- 7. JCLP and The Climate Group, June 2019, Proposal from Corporate Consumers Aiming to Source 100% Power from Renewable Electricity https://www.theclimategroup.org/sites/default/files/policy_proposal_re100_members_in_japan_.pdf
- 8. IRENA, Renewable Power Generation Costs in 2018 https://www.irena. org/-/media/Files/IRENA/Agency/Publication/2019/May/IRENA_ Renewable-Power-Generations-Costs-in-2018.pdf
- 9. Letter from companies, RE-Source Platform <u>http://resource-platform.eu/</u> files/downloads/RE-Source-NECP-Letter-to-EC.pdf

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Authors:

Constant Alarcon, The Climate Group Marie Reynolds, The Climate Group

Data and analysis: Shailesh Telang, CDP Claire Lambert, CDP



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The Climate Group's mission is to accelerate climate action. Our goal is a world of no more than 1.5°C of global warming and greater prosperity for all, without delay. We do this by bringing together powerful networks of business and governments that shift global markets and policies. We act as a catalyst to take innovation and solutions to scale, using the power of communications to build ambition and pace. We focus on the greatest global opportunities for change.

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