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**Energy Peace Partners (EPP) Evidence Submission for SBTi's *Call for Evidence on the Effectiveness of the Use of Environmental Attribute Certificates in Corporate Climate Targets*: Peace REC Project Case Studies**

November 2023

In this Evidence Submission document, nonprofit EPP provides below background context about the "Peace Renewable Energy Credit" (P-REC) and three case studies based on completed P-REC transactions with corporate renewable energy buyers.

EPP is the global issuer of P-RECs. EPP also plays a broader role in the formation and expansion of global voluntary renewable energy markets for corporate buyers as the appointed national issuer of International Renewable Energy Certificates (I-RECs) in the DRC, South Sudan, Somalia, Chad, Ethiopia, and Haiti. I-RECs are the standardized energy attribute certificate available in nearly 60 countries across Africa, Asia, and Latin America.

## Background context about P-RECs

Global renewable energy markets are evolving as corporate buyers evaluate how they can make more targeted, differentiated impacts through their renewable energy procurement decisions. Corporate buyers increasingly want solutions that help them maximize the grid decarbonization and positive human impact for every megawatt-hour of renewable energy they procure globally. Luckily, the menu of procurement options available to buyers is already beginning to provide new solutions that help them reach their goals to more precisely match renewable energy options with their impact goals with applicable energy attribute certificates (EACs) and associated verifiable claims.

EACs represent a valuable type of verifiable claim: that a company purchased 1 megawatt-hour (MWh) of carbon-free electricity from a renewable energy resource verified by grid operator, utility, or another trusted authority for a given national or regional market. EACs serve as both a tradable instrument for global renewable energy markets as well as the receipt of an energy customer's respective renewable energy transaction. Without EACs—whether secured from unbundled or unbundled contracts—energy customers would lose their ability to support the energy transition on a voluntary basis and regulations and climate stakeholders would lose the ability to substantiate voluntary decarbonization claims related to energy customers' energy use.

The P-REC is a unique EAC label that provides corporate renewable energy buyers a procurement solution that supports decarbonization and social impact. More specifically, the

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P-REC is a quality label affixed to qualifying I-RECs from high impact projects in the world's most fragile, energy poor countries, primarily in sub-Saharan Africa.

P-RECs offer corporate buyers the standard zero emission factor benefit as any other I-REC, plus additional benefits that help buyers make progress on their purpose-driven, next generation procurement and impact goals. The RE100 initiative also recognized P-RECs in its latest Technical FAQs as an "additional, voluntary label" for renewable electricity purchasing.

More information about how P-RECs support the deployment of much-needed financing for expanding clean energy access in the world's most fragile countries is available in this research that EPP conducted in collaboration with Center for Resource Solutions (CRC): https://resource-solutions.org/wp-content/uploads/2019/01/Peace-Renewable-Energy-Credits.pdf

P-RECs deliver critical additional revenue for high impact projects by helping developers to partially finance new renewable energy generation assets and/or fund projects with shared community benefits, such as public street lighting and hospital solar electrification. In other words, P-REC buyers get the ability to make verifiable claims about their high impact renewable energy purchases and developers get financial support to move their projects forward.

Buyers can commit to procure P-RECs before or after the renewable energy project is financed:

- **Pre-financing**: A buyer's P-REC procurement delivers critical additional revenue that helps a project developer partially finance the new renewable energy generation asset;
- **Post-financing**: A buyer's P-REC procurement delivers critical additional revenue that helps fund projects with shared community benefits, such as public street lighting and hospital solar electrification.

In either case, P-RECs are then issued from qualified P-REC projects and made available to buyers for use in their respective renewable energy and impact reporting after the P-REC project is operational and the electricity generation data are verified through smart meters.

P-REC prices from completed transactions and currently available projects range from US$30–50 per P-REC.

All P-REC projects share a baseline set of criteria, which EPP validates during a preliminary qualification process before a project can issue P-RECs, including all of the following:

- The renewable energy project is planned or new, meaning less than 12 months since its Commercial Operation Date (COD);
- The project is located in a target country, meaning a region affected by conflict, climate security, and energy poverty;
- The project delivers significant social and economic benefits to the communities it serves; and

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- The project has power generation capacity greater than 20kW.

EPP manages a robust project validation process before the project can qualify as a P-REC project and sell P-RECs. After a developer advances through an initial pre-screening stage, the project then goes through the following key stages:

1. **P-REC project & developer qualification**, including a qualification report, technical documents, and developer due diligence KYC questionnaire;
2. **Project sales and marketing materials development**, including an overview deck;
3. **Project contracting**, including I-REC registrant application, I-REC registrant and issuance agreement, P-REC side letter, and third party sales agreement;
4. **Project commercial operations initiation**, including an uploaded commissioning report and/or certificate of COD (Commercial Operation Date);
5. **Project verification and registration**, including the I-REC device registration and third party verification report;
6. **P-REC issuance**, which takes place on the I-REC Registry; and
7. **Annual reporting**, which includes a P-REC Annual Report and Compliance Certificate.

As the global P-REC issuer, EPP is targeting the development of P-REC projects in the following fragile countries: Afghanistan, Angola, Bangladesh, Burundi, Central African Republic, Chad, Democratic Republic of Congo (DRC), Djibouti, Eritrea, Ethiopia, Guinea, Haiti, Kenya, Liberia, Mali, Mauritania, Myanmar, Niger, Nigeria, Republic of Congo, Sierra Leone, Somalia, South Sudan, Sudan, Uganda, Yemen, Zimbabwe.

EPP is proud of the validation and traction that P-REC projects have already gained among corporate buyers and the positive community impacts they have delivered. The first five examples of corporate P-REC transactions, each of which were facilitated by the renewable energy advisory firm 3Degrees, include the following:

- Microsoft's first and second transactions in Goma, DRC with Congolese solar developer Nuru that supported the development of solar mini-grids, public street lighting, and first-time electricity connections for households;
- Google's transaction in Garamba, DRC with Nuru contributed to a portion of the project capital costs, helping the project get financed and built in order to support new electrification from solar resources and increased electricity access in this community;
- Block's first and second transactions in Malakal, South Sudan helped the the International Organization for Migration (IOM), a United Nations organization, will allow IOM to fund the solar electrification of the Malakal Teaching Hospital, the main healthcare facility serving the city of Malakal and the surrounding region.

These purchases expanded renewable energy access in communities in the DRC and South Sudan, along with improved safety and security, increased livelihood opportunities, and improved public health services. Early research, based on evidence from the P-REC project in

Goma, also indicates that there is an increase in overall levels of positive peace in these communities as a result of the P-REC projects.

The following three case studies help exemplify how EACs can support power sector decarbonization while helping companies make verifiable claims about their renewable energy procurement.

**Case study 1: Goma, Democratic Republic of Congo (DRC)**

*Project Background*
The DRC is among the five most fragile, climate vulnerable and energy poor countries in the world. Its population experience profound human development challenges, including hunger, malnutrition, and lack of access to basic services. DRC has one of the lowest rates of electrification and energy consumption in the world, and the country lacks an interconnected national grid. While hydropower generates the vast majority of DRC's electricity, regional disparities are pronounced and supply satisfies less than one-third of the 3GW in unmet and rapidly increasing demand.

In February 2020, Congolese solar developer Nuru officially inaugurated a 1.3 MW solar system in Goma, the provincial capital of North Kivu Province, becoming one of Africa's largest off-grid solar mini-grid in operation. The solar plant will eventually serve more than 750 households and small to medium-sized enterprises. Nuru's mission is to empower the people of DRC by providing reliable and affordable renewable energy to Congolese households, businesses and organizations. This is the first project from which EPP is issuing P-RECs.

*Role of Peace Renewable Energy Credit*
EPP, with partner 3Degrees, facilitated the pre-sale of P-RECs from this project to Microsoft. This presale funded the first of three phases of a solar-powered streetlight project in the neighborhood of Ndosho in Goma. The streetlights were identified as a priority by the community through consultations. These streetlights are enhancing safety and security in a densely populated area where high levels of crime have created an atmosphere of insecurity for residents and businesses.

*Project outcomes/impact*
On March 20, 2020, the streetlights were turned on, accompanied by celebrations in the streets. It is estimated that 35% of the population in Ndosho (or about 28,000 people) are benefiting from the first phase of this project. Two additional phases are planned for 2021 and 2022 through P-REC sales, extending street lights across Ndosho.

*Learn more*

- Press release from the inaugural sale of P-RECs: https://www.energypeacepartners.com/blog/announcing-the-first-sale-of-p-recs
- The detailed case study developed by 3Degrees about this first transaction: https://3degreesinc.com/resources/first-peace-rec-p-rec-transition-drives-renewable-energy-in-africa/

**Case study 2: Garamba, DRC**

*Project Background*
Less than 1% of rural communities in DRC have reliable access to energy, and the towns of Faradje and Tadu, bordering Garamba National Park in northeastern DRC, are no exception. These towns have been growing rapidly as residents of smaller villages migrate for the greater sense of security felt in more populated areas and the job opportunities offered by support services to artisanal mining activities. Faradje and Tadu have a combined population of more than 46,000 persons, with a range of small enterprises and public institutions.

Garamba National Park was established in 1938 and is a UNESCO World Heritage Site. The park's 2,000 square miles of savanna grasslands contain significant biodiversity. Garamba has one of the last large populations of elephants - a rare hybrid of savannah and jungle elephants known for their long tusks - and the last wild population of the Kordofan giraffe. Garamba has been the frontline of a 30-year struggle against poaching and the illegal ivory trade, creating a hostile environment for local people and the park's wildlife. Armed groups continue to decimate Garamba's elephant population, which has decreased from 22,000 in the 1970s to 1,200 today.

Congolese solar developer Nuru is constructing two commercial solar-based hybrid mini-grids with a combined output of 342kW of solar energy in the Tadu and Faradje communities, which comprise more than 46,000 inhabitants. The projects will ultimately serve more than 1,000 residential and small-business customers in the two rural communities.

*Role of Peace Renewable Energy Credit*
P-RECs were purchased by Google and revenue from this sale of P-RECs contributed to a portion of the project capital costs, helping the project get financed and built in order to support new electrification from renewable sources and increased access to energy in these communities.

More on the significance of this P-REC purchase can be found here:
https://www.energypeacepartners.com/blog/google-purchases-p-recs-from-garamba-drc

**Case study 3: Malakal, South Sudan**

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*Project Background*

Malakal has historically served as the regional capital for the Upper Nile region of South Sudan, and as a commercial hub along the White Nile. Following the outbreak of civil war in late 2013, the city saw heavy fighting and the infrastructure was largely destroyed. In response to the targeting of civilians, the UN Mission in South Sudan (UNMISS) opened its bases in Malakal and other large cities to civilians fleeing the violence. Today, Malakal hosts one of the largest internally displaced person (IDP) camps in the country

The International Organization for Migration (IOM), a United Nations organization, manages the Humanitarian Hub for Malakal camp. The Hub hosts more than two dozen humanitarian agencies that provide services to more than 30,000 IDPs. Previously dependent entirely on imported diesel requiring expensive air transport to Malakal, IOM unveiled a new 700kW solar and battery system in 2020 that now meets 80% of the Hub's energy needs. The solar plant has dramatically reduced IOM's reliance on diesel while providing significant reductions in carbon emissions and energy costs. The project, which was developed by Scatec Solar and Kube Energy, is also the first major example of private sector actors financing and constructing a renewable energy power plant for a United Nations field operation.

*Role of Peace Renewable Energy Credit*

P-RECs issued by EPP from IOM's new solar plant were obtained by 3Degrees, and transferred to Block to further the company's commitment to financial inclusion and desire to support forward-looking sustainability projects. The arrangement between 3Degrees and IOM will allow IOM to fund the solar electrification of the Malakal Teaching Hospital, the main healthcare facility serving the city of Malakal and the surrounding region. Expected to be completed in mid to late 2022, the solar electrification project will enable improved community health services by providing a reliable source of power for the hospital. The P-REC transaction also serves to pilot a funding model that can be replicated by United Nations entities and other international organizations in the field to support humanitarian and peacebuilding initiatives.

*Community profile*

South Sudan became independent in 2011, and shortly after fell into civil war. One of the least electrified countries in the world, what electricity there is depends entirely on imported diesel to run generators. Unfortunately insecurity and hyperinflation have made diesel scarce and created a thriving black market, leading to some of the highest energy costs in the region. Malakal is the capital of Upper Nile State, and since 2013 has seen significant conflict.

For more information on the potential for renewable energy in South Sudan, please see our detailed case study:
https://www.usip.org/sites/default/files/2018-01/sr418-south-sudans-renewable-energy-potential-a-building-block-for-peace.pdf

*Learn more*

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Press release regarding the sale of P-RECs:
https://3degreesinc.com/news/largest-peace-rec-p-rec-agreement-to-date-and-the-first-in-south-sudan-helps-fund-solar-electrification-of-teaching-hospital/

**Conclusion**

This EPP case study submission highlights the impact and importance of EACs—through the example of P-RECs—for providing a trusted system underpinning energy customer choice that, in turn, creates the global market that accelerates financing for power sector decarbonization. P-RECs, like other EACs, provide much-needed additional revenue that enables each new renewable energy project to get financed under the fastest and best financing terms possible.

The fact that there is a global market of renewable energy buyers willing to procure EACs (through unbundled or unbundled contractual arrangements) provides confidence to investors that a given renewable energy project will receive this additional revenue for a period of years after it is built, helping to solve the climate finance gap of more than tripling annual investment between now and 2030.

We need EACs, including but not limited to P-RECs, to solve the climate finance gap. We also need to expand—rather than diminish—incentives for the private sector to contribute to the climate finance gap in the absence of strong regulation and sufficient public funding. By expanding any and all incentives for the private sector to adopt EACs as part of their wider SBTi, the more funding that will become available for renewable energy projects.

EPP hopes that SBTi will support global efforts to expand the use of EACs to promote verifiable claims and scale financing for the energy transition.