

Renewable Electricity Options for Soundstages

Electricity accounts for a significant portion of production carbon emissions. Based on the <u>SPA Carbon Averages</u> <u>Report</u>, at least 25% of average tentpole emissions and nearly 50% of 1/2-hour multi-camera series emissions are from utilities. Some grids are cleaner than others- check your <u>local power mix</u> to see how it compares. The best solution to reduce these emissions is to generate or purchase electricity from renewable sources, such as solar, wind, geothermal, and small hydroelectric. Life cycle carbon emissions from any of these renewable energy sources are <u>many times lower</u> than those from fossil fuels.

Renewable Electricity Procurement Options

There are a variety of procurement structures with different levels of environmental impact.

Solution	Description	Benefits	Challenges
On-Site	Own or lease (PPA)	- Renewable energy is directly	- Limited viable site area
Generation	renewable energy	consumed on-site	- Expensive up-front and requires
	projects on-site, such as	- Typically, utilities provide	maintenance, unless leased
	solar installations on	incentives to reduce cost	through a power purchase
	rooftops or carports.	- Reduces your energy bill and	agreement
		reliance on the grid	
Green Power	Procure renewable	- Has real, local impacts as they	- Limited availability
Purchase or	electricity through your	are tied to a specific project	- There can be minimum usage
Tariff	local utility or energy	located in same grid region	requirements
	supplier. Plans include:	- Supports development of new	- May require long term contract
	green tariffs,	renewable energy projects	- More expensive than
	community solar, etc.		conventional electricity
Virtual Power	Financial transaction	- Easily scalable to meet	- Buyer is not consuming
Purchase	where the buyer	renewable energy goals	renewable energy
Agreements	receives renewable	- Helps finance new renewable	- Some risk involved due to
	energy certificates	energy projects	fluctuating market prices
	(RECs) from a project,	- Energy buyer and project do	- More complicated story to
	but does not receive	not need to be in the same	explain to stakeholders
	energy	region	
Unbundled	Renewable energy	- Can purchase in large	- Buyer is not consuming
Renewable	credit that is purchased	quantities with short-term	renewable energy
Energy	separately from	contracts	- Additional cost, as power still
Credits (RECs)	electricity	- RECs can be sourced from	needs to be purchased locally
		outside your area, giving more	- REC ownership can be difficult to
		flexibility	track
			- Often not able to tie RECs to a
			specific project and may not drive
			the development of new
			renewable energy projects

Helpful Terms

- Renewable Energy Certificates, or RECs (Renewable Energy Guarantees of Origin (REGO) in the UK and Guarantees of Origin (GOO) in the EU): Represent the energy generated by renewable energy sources, such as solar or wind power facilities. RECs are issued when one megawatt-hour (MWh) of electricity is generated and delivered to the electricity grid from a renewable energy resource. Buying RECs is not equivalent to buying electricity. Instead, RECs represent the clean energy attributes of renewable electricity.¹
 - Bundled REC: When a REC is sold alongside (bundled with) the energy produced from a renewable source. Bundled RECs are preferable, as they can be tied to the development of new renewable energy projects.
 - **Unbundled REC:** When RECs are sold separately from the energy. Not a preferable option due to the challenges outlined in the table above.
- Power Purchase Agreement (PPA): Financial arrangement in which a third-party developer owns, operates, and maintains a system generating renewable energy. The host customer agrees to site the system on its property and purchases the system's electric output from the services provider for a predetermined period.¹
- Virtual Power Purchase Agreement (VPPA): Financial agreement where the buyer pays a fixed rate (strike price) to a renewable energy generator for a predetermined period, receiving RECs from the project, but not electricity. As a result, it is an accessible solution for leased locations or facilities that don't pay their electricity bill directly. The energy generator sells the renewable power from the project to their local market, receiving market price. If the market price exceeds the strike price, the generator pays the buyer the difference. If the strike price exceeds the market price, the buyer pays the generator the difference.
- On-Site Renewable Energy: Renewable energy, often referred to as "clean" energy, comes from natural sources or processes that are constantly replenished. For example, sunlight or wind keep shining and blowing, even if their availability depends on time and weather.²
- Nonrenewable Energy: Nonrenewable, or "dirty", energy includes fossil fuels such as oil, gas, and coal. Nonrenewable sources of energy are only available in limited amounts and take a long time to replenish. When we pump gas at the station, we're using a finite resource refined from crude oil that's been around since prehistoric times.²
- **Green Tariff:** A green tariff is a price structure, or an electricity rate, offered by a local utility and approved by the state's Public Utility Commission that allows eligible customers to source up to 100% of their electricity from renewable resources. Through a green tariff, customers can purchase both the energy from a renewable energy project, at a large-scale, and the associated Renewable Energy Certificates.³

Sources

- 1. <u>US EPA- Green Power Partnership</u>
- 2. NRDC- Renewable Energy: The Clean Facts
- 3. WRI- Utility Green Tariffs