

# Discovery Green FAQs

## 1. When will I start receiving renewable energy from Discovery Green?

Discovery Green is collaborating with Independent Power Producers to access energy from among the most efficient renewable energy power plant sites across the country. Power plant construction is a complex process that needs considerable funding. There are no renewable energy power plants currently in operation to which you can connect. Discovery Green has partnered with the industry's leading technical, engineering and legal expertise to offer a quick timeline for the supply of renewable energy. Discovery Green aims to start wheeling renewable energy by 2026.

## 2. Which of my sites can receive renewable energy?

Wheeling of renewable energy is a well-established practice globally, but it is still in its infancy in South Africa. Currently, national regulations allow for the wheeling of energy exclusively to high-voltage Eskom-connected clients and a select number of businesses located within certain municipal networks. Discovery Green will wheel renewable energy to your eligible sites under Eskom's traditional wheeling framework currently in use. There's been a growing need for generation capacity and a rapid adoption of renewable energy. This has led to the imminent release of new power wheeling frameworks to support the established Eskom process that will allow wheeling of renewable energy to almost all electricity consumers in South Africa. Discovery Green will be able to wheel renewable energy to your qualifying municipality-connected sites as soon as these frameworks are implemented.

## 3. Why does wheeling of renewable energy not prevent my business from being affected by loadshedding?

Wheeling of energy does not provide complete protection from loadshedding in the short term. However, generating more energy in the form of renewable energy will provide greater stability to energy generation in South Africa and lower the impact of loadshedding over time.

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When you enter into a Renewable Energy Supply Agreement (RESA) with Discovery Green, there are no physical changes to the infrastructure supplying you with power. The same transmission and distribution networks that supply your business with grid-tied electricity are used to supply you with energy from renewable energy sources. When Eskom implements loadshedding, power supply is interrupted completely, including the transmission of renewable energy.

#### **4. What is the difference between a kilowatt (KW) and a kilowatt-hour (kWh)?**

A kilowatt is a unit for measuring the rate of electricity flow at a given moment in time. Kilowatt-hours are used to measure the volume or quantity of electricity consumed over a period of time. One kilowatt-hour is the amount of electricity that is consumed from a supply of one kilowatt over the course of an hour. One megawatt is equivalent to 1,000 kilowatts; one megawatt-hour is equivalent to 1,000 kilowatt-hours.

The two concepts can be explained using the analogy of water flowing out of a tap. The 'kilowatt' would be the rate at which the water flows from the tap. Opening and closing the tap would either increase or reduce the number of 'kilowatts'. If one were to let the water flow out of the tap for an hour, the 'kilowatt-hour' would be the total amount of water that flowed from the tap during that hour. If one were to increase the rate at which the water flows from the tap, thereby increasing the number of 'kilowatts', more water would be collected after the hour has passed, meaning more 'kilowatt-hours'. The same volume of water ('kilowatt-hours') could be collected if, instead of increasing the rate at which the water flows from the tap ('kilowatts'), the tap was left open for a longer period.

#### **5. How is my energy consumption tracked?**

Your business must have an approved electricity meter. This meter tracks electricity usage regularly to facilitate time-of-use billing. Discovery Green integrates with these meters to retrieve details of your electricity use.

Time-of-use is a classification to account for the hour of the day, the day of the month and the season when a kilowatt-hour of electricity is produced and used. A 24-hour period is divided into three time-of-use periods: peak, standard and off-peak.

Peak periods refer to hours of the day when the demand on the national grid is at its highest, usually in the morning and evening. Eskom charges higher tariffs during peak hours to encourage lower use. Time-of-use tariffs are higher during the winter months of June, July and August compared to the remaining months of the year.

To have a kilowatt-hour of electricity you've used successfully credited against a kilowatt-hour of electricity produced, both must be produced and used in the same time-of-use period in a calendar month. For example, a kilowatt-hour of electricity supplied by Eskom that is used during peak times in January can only be offset with a kilowatt-hour



of renewable electricity if the renewable electricity is produced during peak times in January. This means a kilowatt-hour of renewable electricity produced during off-peak times cannot be credited against a kilowatt-hour of electricity consumed during peak times, or against a kilowatt-hour consumed during off-peak times in another month. Time-of-use tracking enables Discovery Green to accurately measure and then reconcile the renewable electricity produced to what is consumed, which results in a saving to your business. This saving shows differently depending on the wheeling framework that is in place where your business operates. Under traditional wheeling of power, the saving reflects as a credit on your Eskom bill.

## 6. What if our business already has solar on site?

For the average business, it is expensive to have on-site solar energy to make a material difference to your energy use. You can continue to draw energy from your solar solution. Discovery Green will cover the balance of your energy requirements and replace it with renewable energy through wheeling. However, Discovery Green will only replace the grid-tied electricity you use.

## 7. How will renewable energy wheeling reduce my business' emissions?

Wheeling of renewable energy will reduce your business' scope 2 emissions. For most non-industrial businesses, scope 2 emissions account for most greenhouse gas emissions. Wheeling of renewable energy is often the most effective way to achieve carbon neutrality.

An organisation's greenhouse gas emissions can be divided into 3 categories: scope 1, scope 2 and scope 3 emissions.

**Scope 1 emissions** occur because of activities that are directly under the organisation's control. For example, fuel burned by company-owned vehicles.

**Scope 2 emissions** occur from the direct production of energy that is used by the organisation. Scope 2 emissions are generated off-site but are a result of the organisation's energy use, for example, heating and cooling. Typically, scope 2 emissions of a non-industrial company account for 80% of its total greenhouse gas emissions. Scope 2 emissions are reduced through wheeling of renewable energy.

**Scope 3 emissions** include all other indirect greenhouse gas emissions and occur through an organisation's activities that are not included in scope 1 or scope 2. These emissions are often the most challenging to measure. It includes the entire value chain of the organisation, including suppliers, customers and other stakeholders. For example, employee commutes.



## **8. Why should my business maximise renewable energy coverage now?**

There is a financial benefit to maximising your coverage of renewable energy now as opposed to filling up your demand in incremental steps. Delays in maximising your renewable energy coverage means your business will do without the potential savings available from wheeling.

When choosing a low renewable energy coverage, your renewable energy supplier may wish to wheel power to you mainly during off-peak periods when electricity is less expensive. Renewable energy prices may appear low to reflect this saving for the energy provider. However, you may be setting yourself up to pay higher tariffs for renewable energy in future when you increase your coverage level to begin offsetting your consumption of electricity supplied by Eskom during peak and standard periods.

There are also a limited number of power plant sites available with the ability to connect to the national grid. The unpredictability of future grid availability may lead to uncertainty in future renewable energy prices.

With renewable energy through Discovery Green, the saving and pricing structure provides certainty of cost and supply.

## **9. Do I receive the renewable energy generated at the plant?**

There is a single national electricity grid that facilitates the generation, transmission, distribution and consumption of all electricity in South Africa. Since electrons from both non-renewable and renewable sources are fed into the national grid, all electricity users are consuming a mix of non-renewable and renewable electricity at any given time.

Renewable energy wheeling manifests as an accounting transaction rather than a change to the infrastructure supplying your business with power.

## **10. Do I contract with a specific plant?**

No. Discovery Green contracts with a wide range of leading renewable energy generators across the country to provide optimised renewable energy solutions to your business. A blended generation portfolio allows your business to benefit the most from different types of renewable energy generation technologies at the most optimal locations across the country. For this reason, businesses on Discovery Green's Renewable Energy Platform do not contract with a single power plant.

## **11. Can I choose how much wind and solar I want?**

Discovery Green's products, Green Saver and Green Guarantee, have been designed to meet your business' goals in the most cost-effective way. Either by maximising financial savings or by maximising emissions reduction. Both products make use of an appropriate



balance between wind and solar technology. There is no need for you to specify a certain technology mix.

## **12. What about other renewable energy sources such as hydro or green hydrogen?**

The generation of renewable energy is not limited to wind and solar technologies. There are a number of ways to generate renewable energy from other sources, such as hydro plants, biomass plants and green hydrogen power plants. In South Africa, wind and solar technologies offer the most cost-effective and efficient way to generate renewable energy for businesses.

## **13. My business needs to have an electricity supply of at least 1 kV (kilovolt) to enter a renewable energy wheeling arrangement. What exactly does this mean?**

Voltage can be interpreted to be a measure of the 'pressure' in an electrical system. The greater the voltage, the greater the strength of this 'pressure'. A 1 kV supply is a relatively high voltage and is typically used for larger electrical systems. To put this into perspective, most homes in South Africa have a 0.2 kV (200 V) supply.

## **14. Why does it take so long before I can first receive renewable energy?**

The successful construction and operation of renewable power plants requires a significant amount of engineering, environmental, financial, technical and legal expertise.

There are several factors that contribute to the timeline for renewable energy supply.

Plant developers undergo an extensive permitting and approval process before plant construction can begin. Various infrastructural, land and environmental permits must be secured before construction can commence.

Financing a renewable power plant can be a complex task as several macro- and micro-economic risks, which need to be considered. Lenders need to be satisfied with the project's viability, and this takes time.

Renewable power plants need to be connected to the national electricity grid. This often requires upgrades to the existing infrastructure to ensure that the additional generation capacity can be handled.

Building large-scale renewable power plants requires specialised engineering and construction skills. Overcoming technical challenges and ensuring quality construction can take time.

## **15. What if the plant is delayed?**

Since Discovery Green contracts with a range of renewable energy generators, a delay in the construction of a single plant may not affect your expected timeline for the first supply



of renewable energy. If there is a construction delay, Discovery Green will notify you well in advance. In the case of delayed generation, the commencement date, as specified in your RESA, will be adjusted in line with the RESA's terms and conditions.

#### **16. What happens if the renewable power plant fails?**

Discovery Green has a diversified generation portfolio by contracting with a wide range of renewable energy generators. In the highly improbable event of a single power plant failing, Discovery Green will likely be able to continue supplying your business with renewable energy.

Your business only pays for electricity that is generated and is in no way responsible for the failure of any power plant.

#### **17. What about the generator I use during loadshedding?**

You can continue to use a generator during times of loadshedding or power outages. Discovery Green will cover the balance of your energy requirements and replace it with renewable energy through wheeling. However, Discovery Green will only replace the grid-tied electricity you use.

#### **18. What about the batteries in my business?**

When your business consumption needs are met by drawing power from your batteries, the same will apply as for a generator. You will not receive any renewable energy savings related to your consumption that is serviced through batteries.

Discovery Green will service the demand when your batteries are being charged by grid-tied electricity. If your batteries are being charged by solar, then the same will apply as for any other consumption serviced by solar.

#### **19. What if the substation in my area fails?**

Since there is no change to the infrastructure supplying your business with power when you wheel renewable energy, any downtime of the national grid or distribution networks may prevent you from receiving renewable energy. You may, in rare circumstances, be required to pay for 'lost' energy if it was generated but not received.

However, Discovery Green has a well-diversified and large community of businesses on its platform. Any excess energy on its platform because of the downtime of the national grid or distribution networks can be allocated to other businesses on the platform that want to increase their supply of renewable energy.

Discovery Green will take all reasonable actions to relieve your business of the need to pay for energy not received.



## **20. What happens if there is cable theft?**

Much like any system downtime, you may be prevented from receiving renewable energy if your business' power supply is interrupted. You may, in rare circumstances, be required to pay for 'lost' energy, if it was generated but not received.

However, Discovery Green has a well-diversified and large community of businesses on its platform. Any excess energy on its platform because of downtime of the national grid or distribution networks can be allocated to other businesses on the platform that want to increase their supply of renewable energy.

Discovery Green will make all reasonable endeavours to relieve your business of the need to pay for energy not received.

## **21. How do I know if the electricity meter I have is acceptable?**

If your business is already billed according to a time-of-use tariff, Discovery Green will be able to integrate with your existing electricity meter, so there is no need for you to change meters. If your business is not currently on a time-of-use tariff, you will need to install an approved electricity meter capable of time-of-use consumption tracking. If you require assistance getting an approved meter installed, you can ask our team for help by sending an email to [Support.DiscoveryGreen@Discovery.co.za](mailto:Support.DiscoveryGreen@Discovery.co.za).

## **22. What if I am not on a time-of-use tariff?**

As an Eskom customer, to enter a renewable energy agreement in South Africa, your business is required to be billed according to a time-of-use tariff. If your business is not on a time-of-use tariff, you will need to convert to a time-of-use tariff. The most common time-of-use tariff structures are the Eskom Megaflex and Eskom Miniflex tariffs.

If you have queries about the changing of tariff structures, please send your questions to [Support.DiscoveryGreen@Discovery.co.za](mailto:Support.DiscoveryGreen@Discovery.co.za).

## **23. What initial costs does my business incur when wheeling renewable energy with Discovery Green?**

After signing a RESA, your business has to make a deposit that is equal to three months of active energy charges. This is roughly equivalent to one and a half months of your business' electricity bills. You do not have to make any physical changes to the infrastructure supplying you with electricity.



## **24. What will I see on my bill from Eskom?**

Your business will continue to receive monthly electricity bills from Eskom as your utility provider. These bills will contain charges for your business's total electricity consumption as well as for Eskom's regular fixed charges.

Under Eskom's traditional wheeling framework, your bill will contain a renewable energy credit against your active energy charges. This credit will reflect the renewable energy that your business wheeled and consumed through Discovery Green.

## **25. What are active energy charges?**

Active energy charges are the charges for each unit of energy consumed. They are directly proportional to the amount of electricity you use. In addition to being charged for the amount of electricity you use, your utility provider will charge a number of fixed costs that are independent of your business' consumption.

## **26. What about all the other charges on my bill?**

In addition to the active energy charges on your bill, your electricity provider charges fixed costs for administration and for the use of the existing transmission and distribution infrastructure.

Since your business remains connected to the national grid, these charges remain on your monthly bill after entering a renewable energy wheeling arrangement with Discovery Green.

## **27. What if my connection and demand is small?**

Under Eskom's traditional wheeling framework, Eskom only allows for wheeling to businesses with connection sizes that are greater than one kilovolt.

## **28. I lease my building, do I qualify?**

Yes. As the occupant of the building, you are entitled to enter into a RESA provided that you receive your electricity bill from Eskom and you are not sub-metered by your landlord.

## **29. What if my business stops operating temporarily?**

Unlike the general consumption of electricity supplied by Eskom, renewable electricity is, in most cases, ordered and paid for irrespective of the actual consumption - provided such electricity is generated.

The Green Saver and Green Guarantee products target a specific level of renewable energy to be wheeled to you. If generated, you must pay for this energy, regardless of your





business' consumption. However, Discovery Green will try to re-allocate any excess energy to other businesses on its platform to relieve your business of these costs.

### **30. Do I need to send Discovery Green my business' electricity bills each month?**

No. Discovery Green integrates with your time-of-use electricity meter to receive your electricity consumption data.

### **31. Can I choose what percentage of my electricity I wheel?**

Discovery Green's products, Green Saver and Green Guarantee, have been designed to provide you with optimised renewable energy solutions, finding the perfect balance between financial savings and emissions reduction depending on your business' requirements. Each product targets a specific level of renewable energy to be wheeled to you. The target coverage level under each product cannot change.

### **32. What if my consumption profile changes between now and the date of renewable energy delivery?**

Discovery Green recognises that a business' consumption may change over time. If your business' consumption changes materially between now and the wheeling commencement date, as specified in your RESA, and the higher consumption rate is expected to remain at this level in future, Discovery Green may reasonably consider your request to adjust the renewable energy supply agreements as specified in your RESA.

### **33. What is WEPS?**

This is Eskom's Wholesale Electricity Pricing System (WEPS). The WEPS tariff is applied to local electricity producers who sell electricity to Eskom. Eskom also charges the WEPS rate when selling electricity to municipalities and to certain large energy consumers. Most Eskom-connected corporates in South Africa are billed according to Eskom's Megaflex or Miniflex tariff structures. The active energy charges under the WEPS tariff are identical to the active energy charges under Eskom's Megaflex and Miniflex tariffs.

### **34. When will I get the Proposition document?**

You are required to submit a completed *Business Site* template on the Discovery Green website using your registered Discovery Green account. After verifying the validity of the information submitted, Discovery Green can begin generating your Renewable Energy Proposition. The proposition can be accessed through the Discovery Green website and is available for download.



### **35. When will my quote be available?**

Once the proposition is available for viewing, you will be able to configure a product and term selection for each of your sites. Upon confirming your product and term selection, a renewable energy quote is automatically generated and will become available for viewing. You can accept the quote online. You can access the accepted quote through the Discovery Green website and is available for download.

### **36. Why do I get 70% coverage a year and not a month on Green Saver ?**

Most businesses will have an electricity consumption profile that varies throughout the year. This variation is typically the result of seasonal differences in the operation of a business. Similarly, renewable energy generation is subject to seasonal volatility. Since this volatility is more easily accommodated over the course of a year, rather than a month, it is more efficient and cheaper for your business to target a specific coverage level over the course of a year. Although your business will have a renewable energy coverage level above 70% in some months and below 70% in other months, Discovery Green aims to achieve 70% coverage over the course of the year.

### **37. What if I already have a wheeling agreement with someone else?**

Any existing renewable energy agreements that your business has do not prevent you from requesting a renewable energy quote from Discovery Green. We will be able to replace your remaining consumption of grid-tied electricity with renewable energy. Importantly, you will need to inform Discovery Green of any existing renewable energy agreements so that you do not receive and are required to pay for renewable energy that is not essential.