

# DISCOVERY **GREEN**





# DISCOVERY GREEN

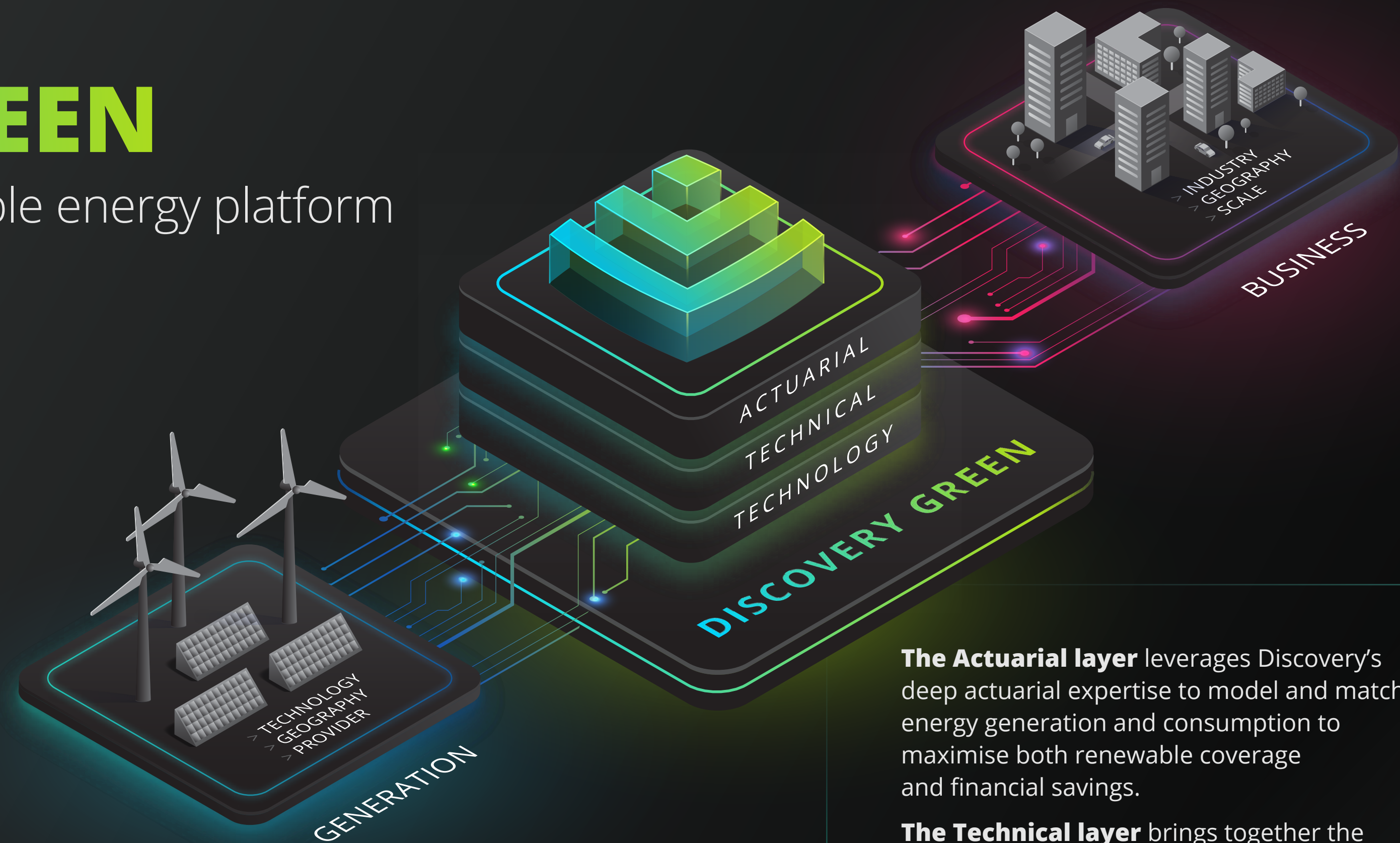
## Introducing Discovery's renewable energy platform

The platform will enable wheeling to address pain points in organisations' electricity supply that are limiting their growth. Namely, electricity in the country is fossil-fuel based, insufficient, and options to significantly reduce carbon emissions are limited.

Through the benefit of scale and Discovery's actuarial and technology capabilities, the Discovery Green platform will provide access to affordable and renewable power. This means more certainty in expenditure and a mechanism to meaningfully and substantially reduce clients' carbon emissions. Over time, the platform will help combat the national electricity shortfall.

Under the new Discovery entity, Discovery Green, the renewable energy platform will be one of the first offerings that will allow businesses to reduce their carbon emissions.

Discovery Green is a tangible manifestation of Discovery's commitment to being a force for good in society, and an extension of its Vitality shared value model.



**The Actuarial layer** leverages Discovery's deep actuarial expertise to model and match energy generation and consumption to maximise both renewable coverage and financial savings.

**The Technical layer** brings together the leading market expertise in risk management, lending, engineering, financial and legal to ensure sophisticated due diligence and security in connection.

**The Technology layer** supports these pillars with an operational capability for rapid contracting, monitoring as well as flexibility.



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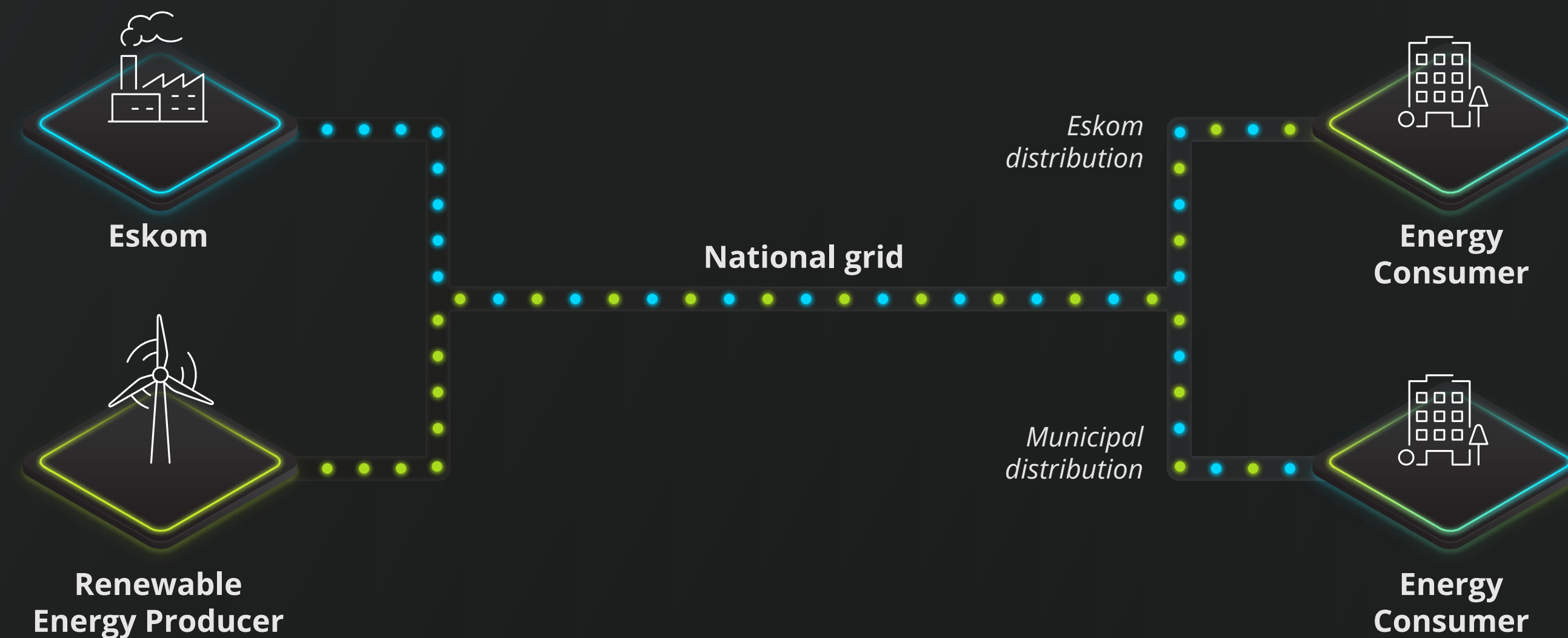
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# WHEELING OF ENERGY. EXPLAINED.

Installing solar panels at your business premises will only take you so far in terms of meeting your green energy goals.

Wheeling of energy is a process where renewable energy is generated at the most efficient locations in the country and “wheeled” to your business through the national grid. While it does not directly impact loadshedding, it does allow you to get your business running on more affordable, renewable energy. Instead of having only one provider of electricity, you now have the option to choose who to buy your electricity from.



# WHY SHOULD COMPANIES **WHEEL?**

Wheeling of renewable energy has a number of significant benefits to businesses:

WHY SHOULD COMPANIES WHEEL?

1

## **SAVE ON ELECTRICITY COSTS** AND LOCK-IN FUTURE PRICE SECURITY

Advancements in renewable energy generation technologies have resulted in lower generation costs and certainty in the annual cost increases for businesses.

2

## **REDUCE SCOPE 2 EMISSIONS** AND IMPROVE ESG RATINGS

Scope 2 emissions from electricity consumption typically account for 80% of a non-industrial company's total greenhouse gas emissions (Scope 1 & 2). Wheeling provides an authentic and cost-effective mechanism to significantly reduce business emissions.

3

## **ACTIVELY CONTRIBUTE TO ENERGY SECURITY** IN SOUTH AFRICA

It is estimated that South Africa requires 60GW of renewable energy generation to be fully operational by 2030 just to maintain current levels of economic growth. Private renewable energy generation can help meet this demand.

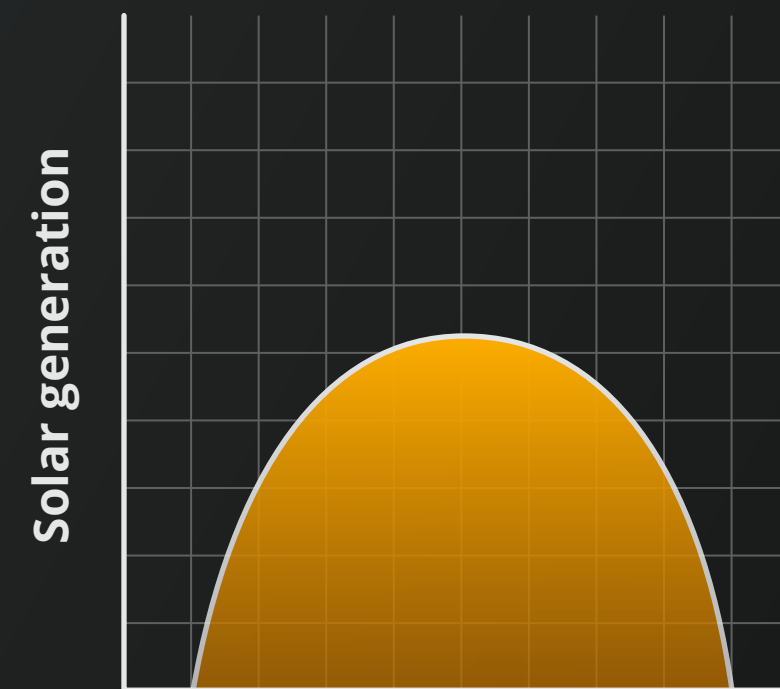
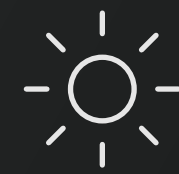
# MAKING THE MOST OUT OF WHEELING

Every business consumes electricity differently, both in terms of amount of consumption (MWh or kWh) and time of consumption (peak, off-peak or standard).

For the majority of businesses, a renewable power plant will generate too much electricity during certain times and not enough during others - this creates a mismatch between the generation and consumption of renewable energy that reduces the affordability and efficiency.

A consequence of this is having to pay for renewable energy that you are not consuming, or your business not consuming enough and thereby missing out on potential savings and emission reductions. There is a fine balance here that requires diversification, scale and sophisticated modelling.

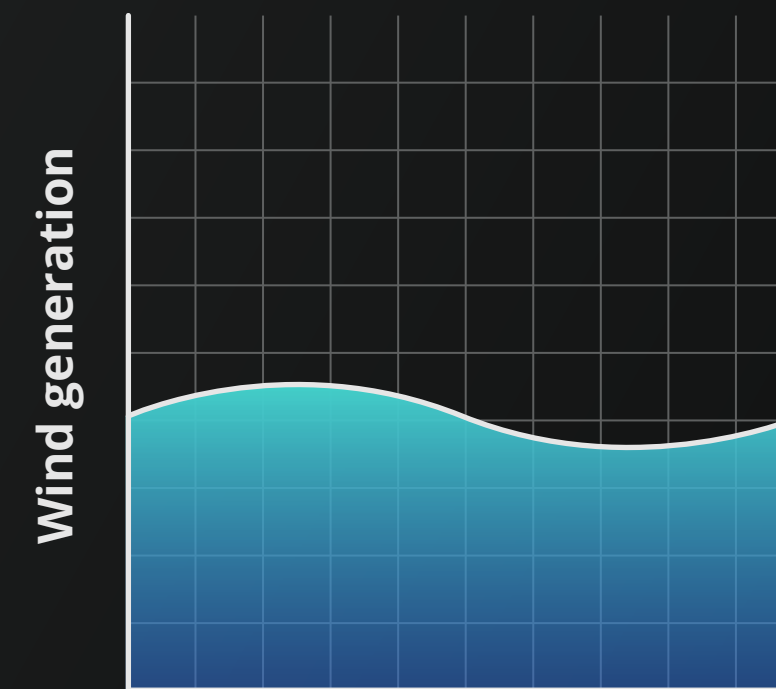
## SOLAR GENERATION



Time of day

Solar plants offer an intense supply of renewable power that is limited to daylight hours.

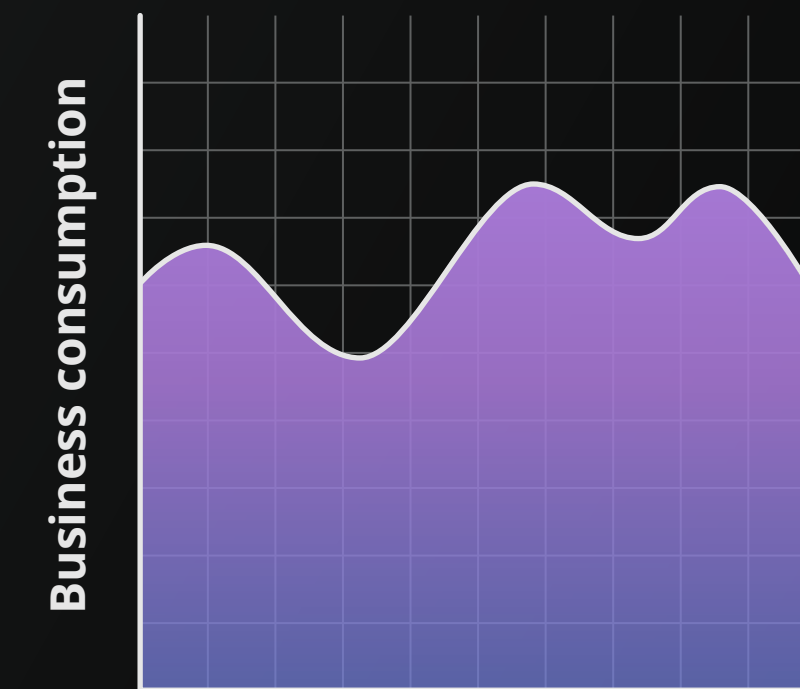
## WIND GENERATION



Time of day

Wind offers a more consistent supply over a 24-hour period but at less intensity.

## BUSINESS CONSUMPTION



Time of day

Every business consumes electricity differently and consumption varies over time.



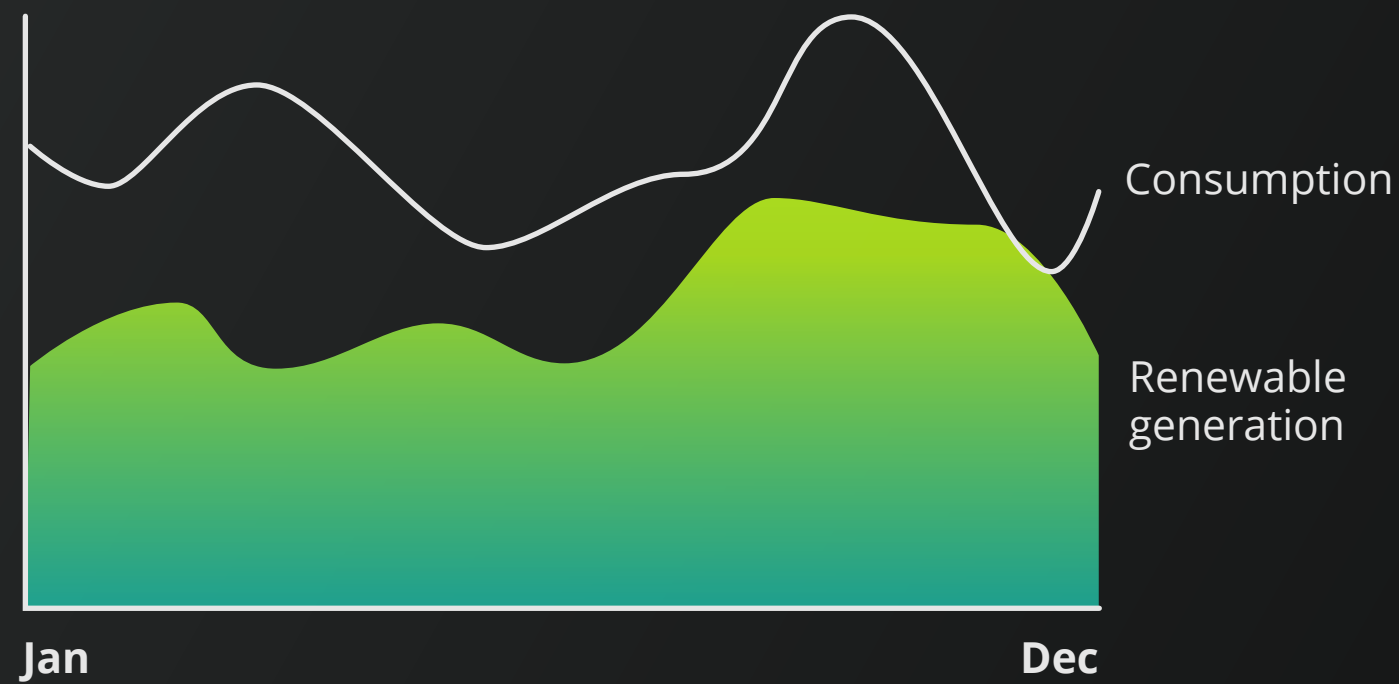
# FINDING THE RIGHT AMOUNT OF ENERGY TO WHEEL

Unlike your current consumption of electricity where you pay for what you use, renewable energy is, in most cases, ordered and paid for regardless of how much your business consumes.

This is because a new renewable energy generation facility has to be built and paid for over time. The more renewable energy you order, the greater the risk of having to pay for electricity that you don't consume.

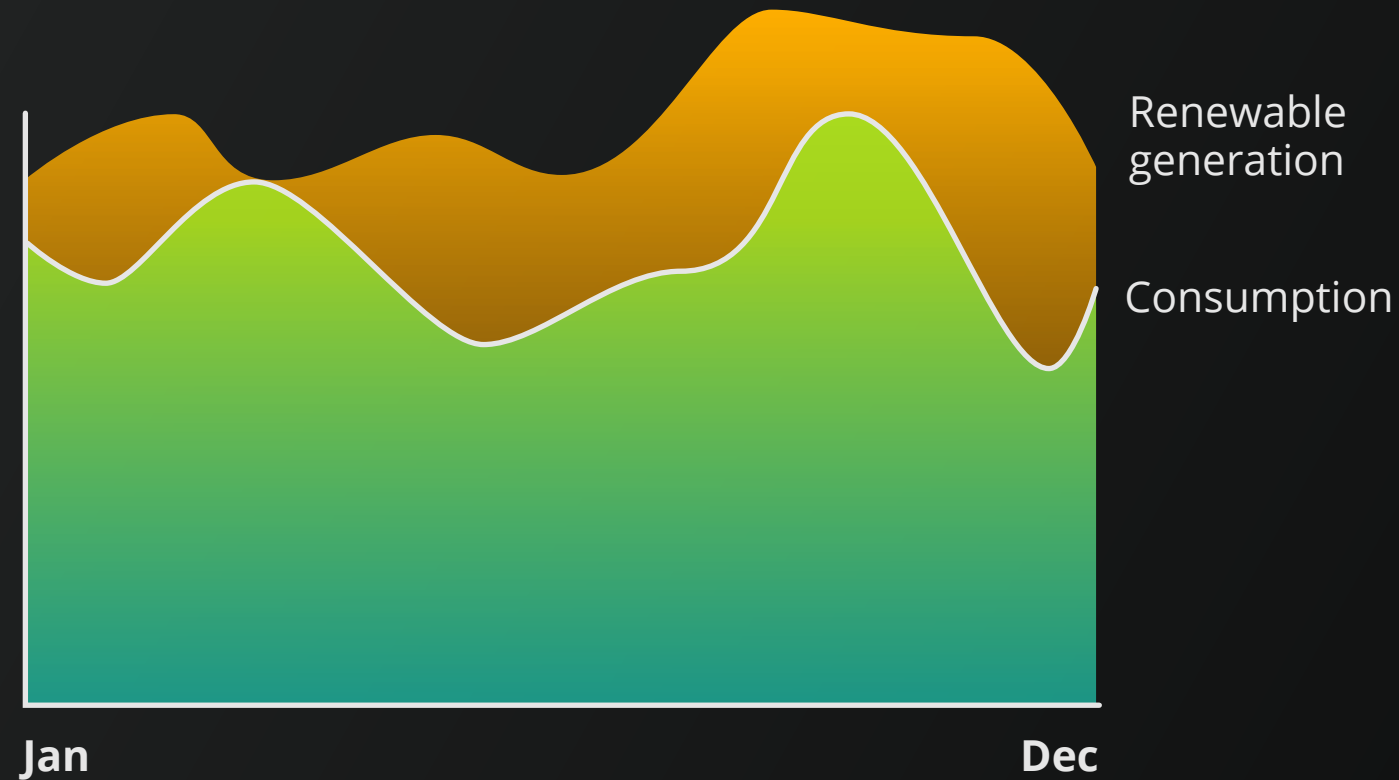
The consequence of this is less savings on each additional MWh wheeled and eventually any additional renewable energy you order will be at a cost over your current bill. This leads to what we like to call, the Energy Frontier – any business should strive to find the point where savings and emissions reduction is maximised, the point at the top of the Energy Frontier curve. In turn, every renewable energy provider should strive to get the best Energy Frontier for its clients.

Energy consumption vs. energy generation



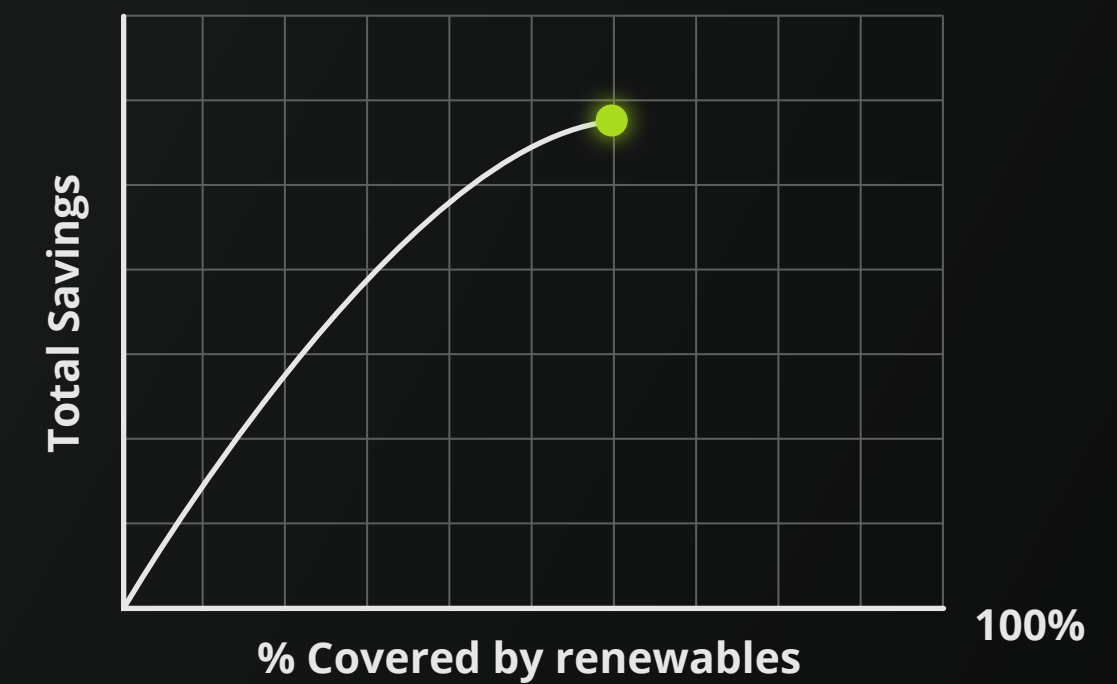
Maximum supply while ensuring no wastage.

Energy consumption vs. energy generation



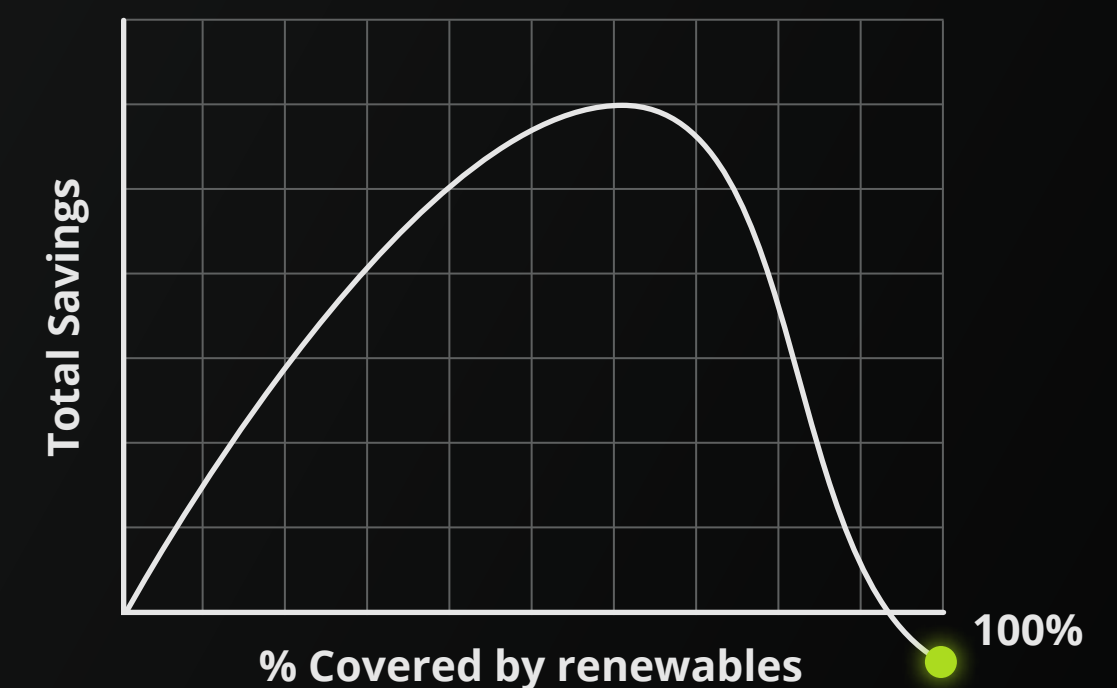
Excess must be generated to ensure 100% coverage.

The Energy Frontier



High coverage but total savings reach their peak.

The Energy Frontier



Full coverage but savings disappear

FINDING THE RIGHT AMOUNT OF ENERGY TO WHEEL

# POWERFUL PRODUCTS

Whether your business is interested in maximising savings from renewable energy, or has the goal of minimising emissions, we have the products to help you achieve these aspirations.

We have developed two products, aimed at addressing the two potential needs of any business. The first, the Green Saver, finds the highest point on the Energy Frontier and maximises the financial savings and emission reductions for your business. The second, the Green Guarantee, allows your business to fully run on renewable energy and reduce your emissions.



GREEN  
SAVER

Provides the maximum saving on the renewable energy procured by a business, by optimising generation and consumption.



GREEN  
GUARANTEE

Provides businesses with the opportunity to move to 100% use of renewable energy to achieve the highest possible reduction in carbon emissions.

# WHEREVER YOU ARE AND EVEN IF YOU MOVE

The market for renewable energy wheeling is rapidly changing.

Wheeling is live and currently available to Eskom-connected clients and a select number of businesses located within certain municipal networks. With the expected introduction of new power wheeling frameworks to support the established renewable energy wheeling process from Eskom, Discovery Green aims to offer your business access to renewable energy from almost anywhere you may operate. Discovery Green will be ready to make use of these new frameworks as soon as they are implemented.

We understand that businesses don't always remain in the same premises. Businesses may also need more renewable energy as they grow. Discovery Green is able to provide enough flexibility to ensure your business remains connected to renewable energy.



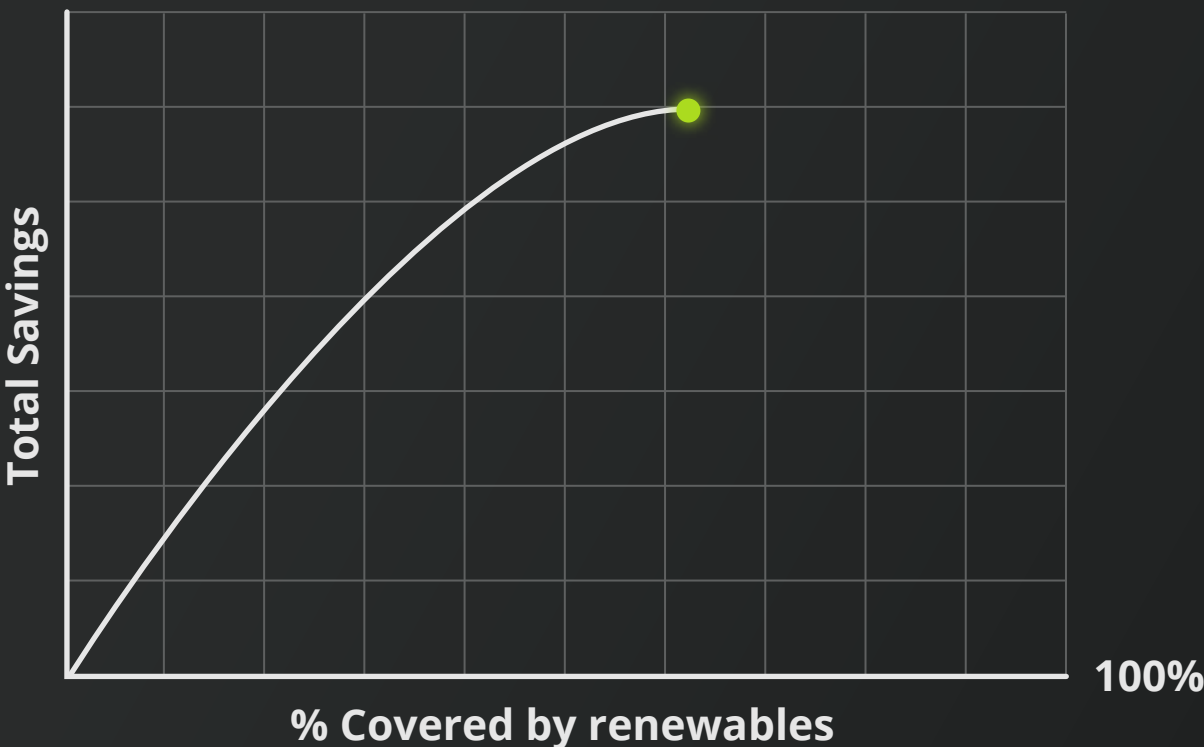
# GREEN SAVER

## RUN ON ±90% RENEWABLE ENERGY

The platform aims to provide you with 90% of your electricity needs in a given year. Should there be more renewable power available, through the platform, we have the right to provide up to 100% of your electricity demand. Irrespective, the platform should serve at least 70% of your demand.

Should there be excess renewable energy available on the platform, this energy could be offered to you to increase your renewable energy coverage above 90%. You are under no obligation to accept excess energy beyond your 100% coverage level.

The Energy Frontier



## A SAVING OVER YOUR CURRENT COST OF ELECTRICITY

Instead of a blended tariff that is based on your electricity consumption according to your time of use, and on the renewable energy generation profile, Discovery Green makes savings for businesses transparent and clear.

The Green Saver product provides a flat discount in your active energy charge per kilowatt-hour consumed, irrespective of your time of use or existing tariff structure. The discount flexes by contract duration, increasing in size with an increasing duration.

## RENEWABLE ENERGY CASH BONUSES

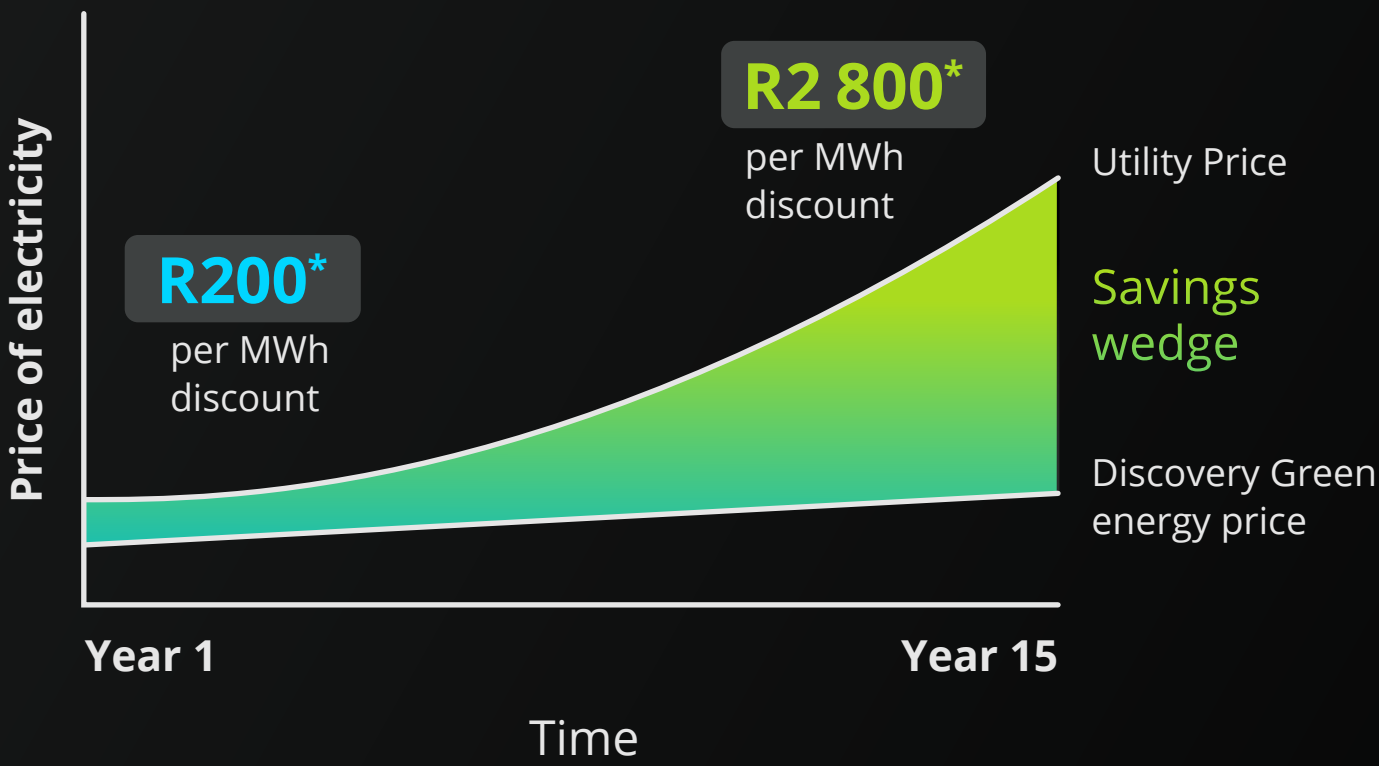
In addition to the per kilowatt-hour discount to your active energy charges, Discovery Green offers renewable energy cash bonuses on contract renewal. This cash bonus will become available on contracts that expire after a duration of between 5 and 10 years when businesses then choose to renew their agreements with Discovery Green for at least another 5 years. The cash bonus varies in accordance with the duration of the initial contract.

**i** Prices and Cash Bonuses are shown when you request a quote from Discovery Green.

## MORE CERTAINTY IN YOUR ANNUAL COST OF ELECTRICITY

Over the past decade, active energy charges have become increasingly expensive for businesses, increasing at an annual rate of CPI + 5%.

The active energy charges from Discovery Green will increase annually at CPI. This is likely to result in an increasing savings wedge over existing providers over time.



*\* Illustrative prices; graph based on historical experience and expected projections*

PRODUCT | GREEN SAVER

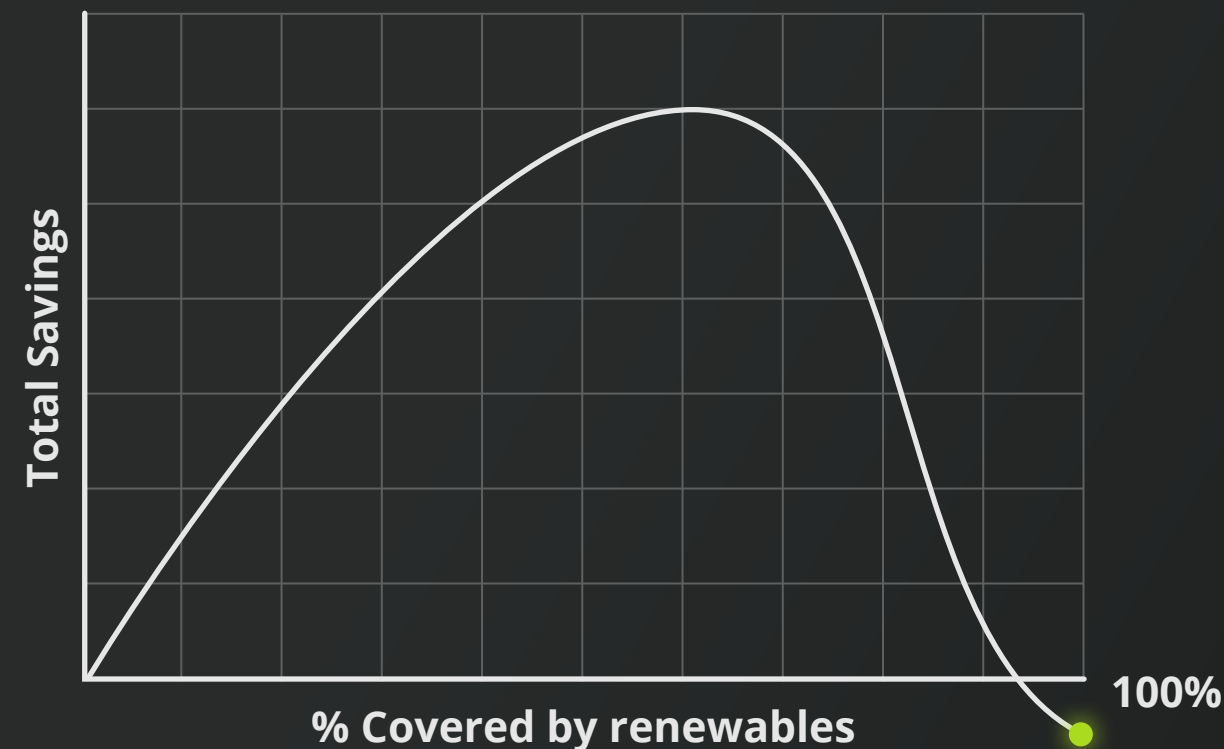


# GREEN GUARANTEE

## RUN ON 100% RENEWABLE ENERGY

The platform aims to provide you with 100% of your electricity needs in a given month. Should your electricity consumption profile change, the platform can provide up to 110% of your expected consumption, but will provide a minimum coverage of 100%.

The Energy Frontier



## A COMPETITIVE PREMIUM FOR A SUBSTANTIAL EMISSION REDUCTION

The Green Guarantee product charges a premium in your active energy charge per kilowatt-hour consumed, irrespective of your time of use or existing tariff structure. The premium flexes by contract duration, decreasing in size with an increasing duration.

## RENEWABLE ENERGY CASH BONUSES

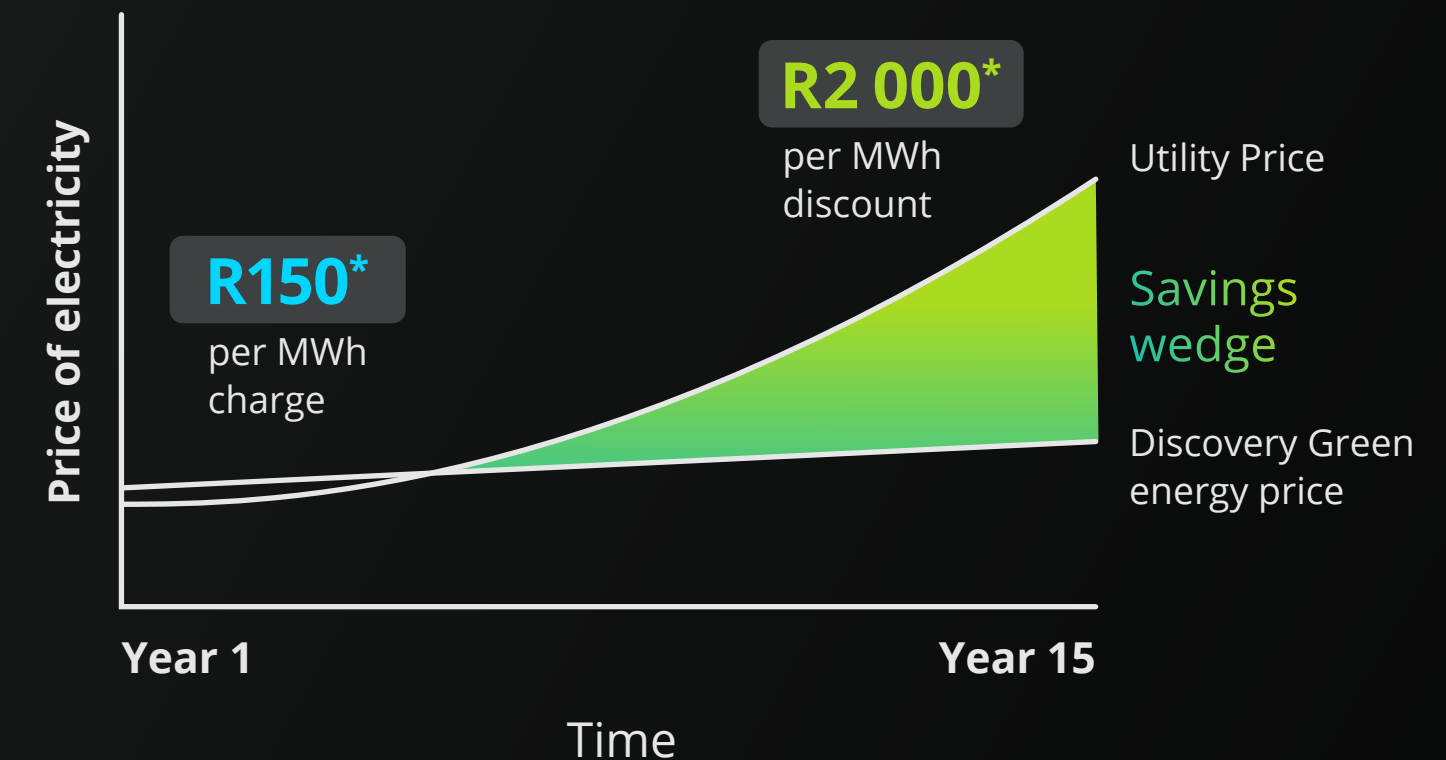
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## MORE CERTAINTY, AND A LIKELY SAVING OVER TIME

Over the past decade, active energy charges have become increasingly expensive for businesses, increasing at an annual rate of CPI + 5%.

The active energy charges from Discovery Green will increase annually at CPI. While the Green Guarantee product comes at a premium, over time the lower expected annual increases will create a net saving to your business.



\* Illustrative prices; graph based on historical experience and expected projections



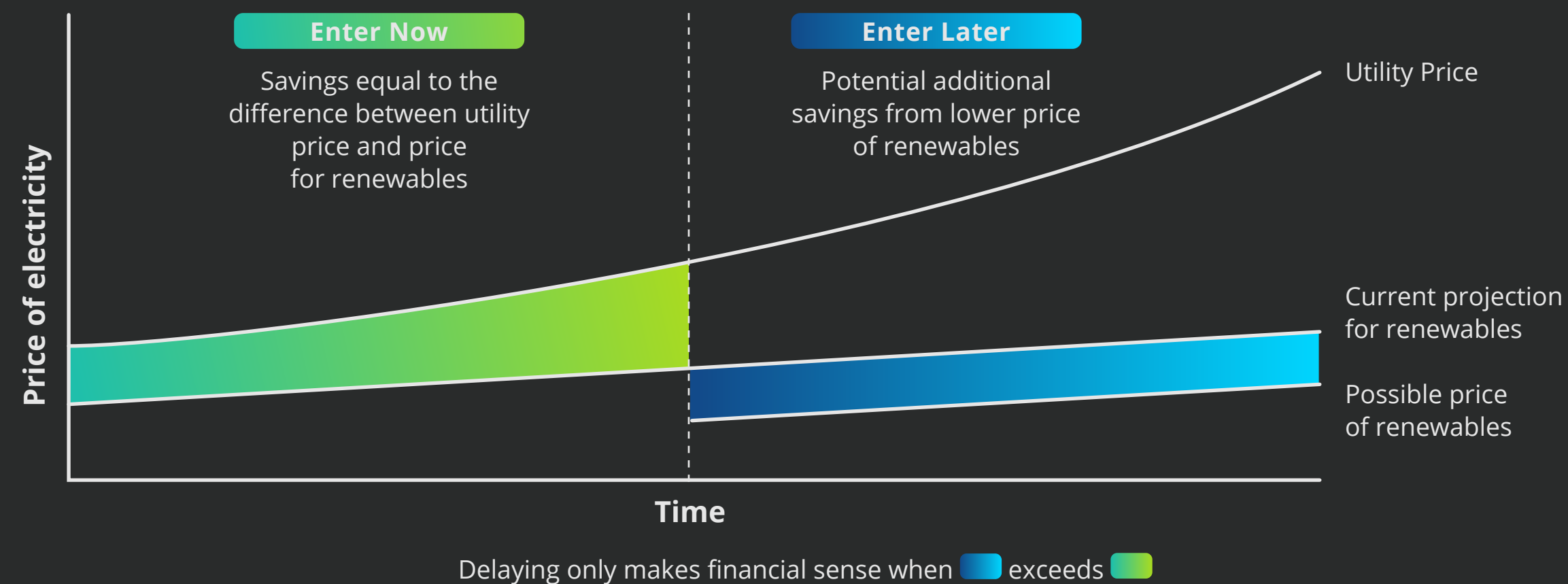
# THINKING OF DELAYING, OR STARTING SMALL? DON'T.

While starting with a small order of renewable energy (as a percentage of your total consumption, or coverage level) might be considered safe, this can create a number of problems.

## OPPORTUNITY COST

While the cost of renewable energy generation has been decreasing, foregoing present-day savings is likely to prove more costly in the long run.

In simple terms for every five years of delay, the price of renewable energy has to drop by 19% for a delay to make economic sense.



## GRID AND RESOURCE AVAILABILITY

Independent power producers are finding it increasingly expensive and complicated to connect their renewable power plants to the national grid. Furthermore, locations with the most appealing natural resource availability are in high demand and are being reserved first.

## AVAILABILITY OF CREDIBLE RENEWABLE ENERGY GENERATORS

The number of renewable energy providers in South Africa has increased exponentially over the past few years, as updated regulations for the private market have come into play. While this is good for competition, the complexity of a sizeable renewable energy project requires considerable due diligence and scrutiny. A select number of independent power producers have a successful track record in South Africa and internationally – businesses have to consider the cost of due diligence and the risk of underperformance of the plant or a delay in its construction.



# GETTING TECHNICAL. DISCOVERY GREEN PLATFORM IN ACTION.

## SCALE

There are significant fixed costs associated with the construction of a renewable power plant, such as the costs of having to connect to the national grid. This means that the cost of generating a single kilowatt is higher for smaller plants. Discovery brings together a wide range of businesses to gain access to the largest renewable power plants. Your business benefits from among the most economic and efficient sources of renewable energy in the country.

## PROTECTION

Unlike the consumption of Eskom-supplied electricity, renewable electricity is often ordered and paid for irrespective of actual consumption, provided such electricity is generated. In some cases, this presents a risk to the business of having to pay for electricity that is never used. Discovery Green offers businesses protection against the unnecessary costs involved with reductions in consumption.

Consider the scenario where two businesses agree to wheeling of energy to their premises. Each business has a coverage level (percentage of expected consumption that is covered by renewable energy) that is below 100%. The two businesses consume all the renewable energy that is generated.



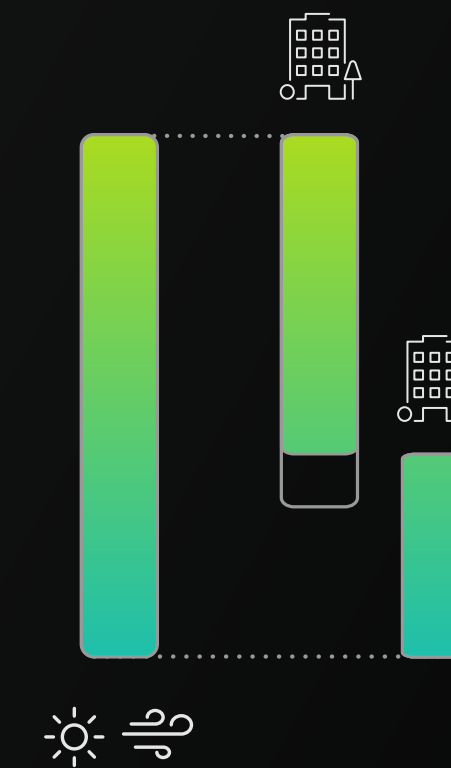
### Traditional model

One of the businesses experience an extreme reduction in consumption to half of its previous level. Under the traditional model, this business would have to pay for renewable electricity up to its contracted amount.



### Discovery Green Platform

The other business has capacity for more renewable energy. Using Discovery Green's platform, the excess supply could be allocated to it. The business with reduced consumption benefits from no wasted costs and the other business benefits from more renewable energy that is cheaper and further reductions in emissions.



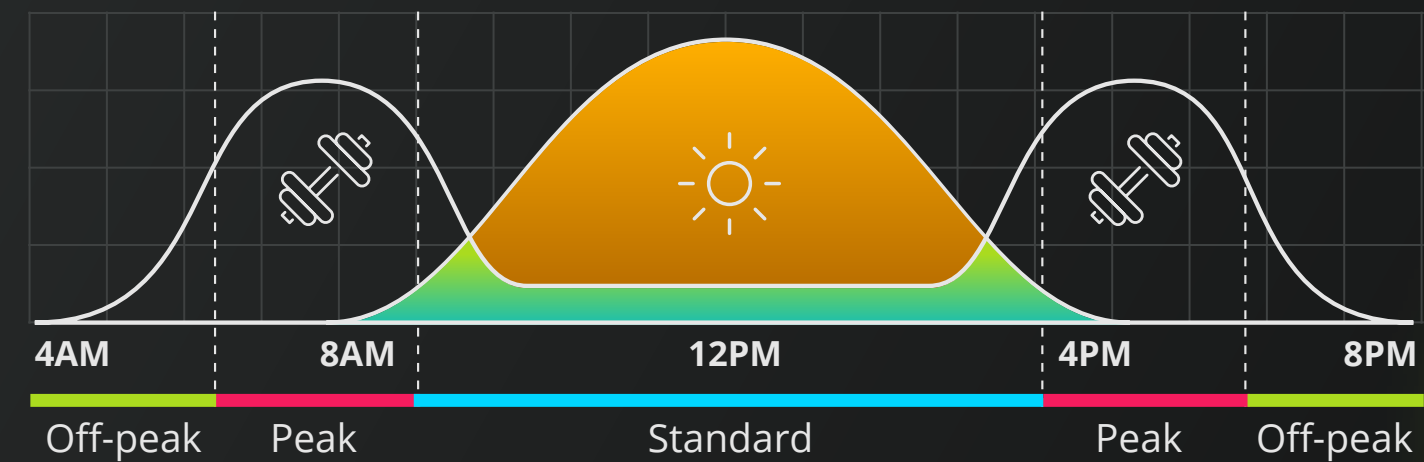


## SMOOTHING

A single business will always face the risk that its consumption profile is not similar to the profile of renewable energy generation. This presents the risk of wasted supply.

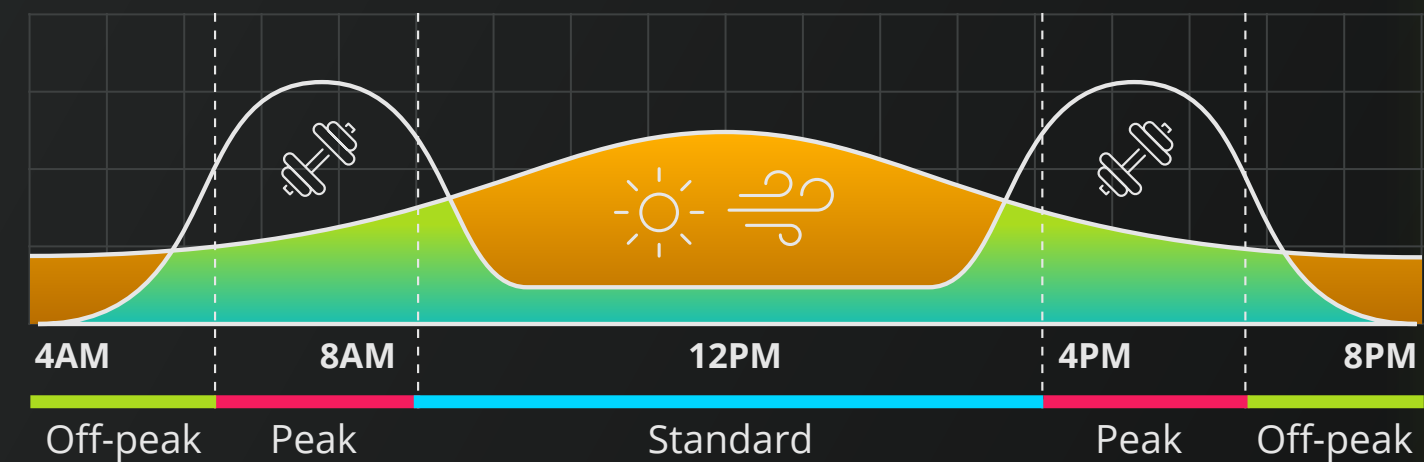
### Single generation source and industry

Consider, for example, the typical consumption profile of a gym. A gym can expect to have consumption spikes in the early morning and evening when customer usage is high. If the gym receives renewable energy from a solar PV (photovoltaic) plant, it will be poorly matched as the plant generates renewable energy during daytime hours.



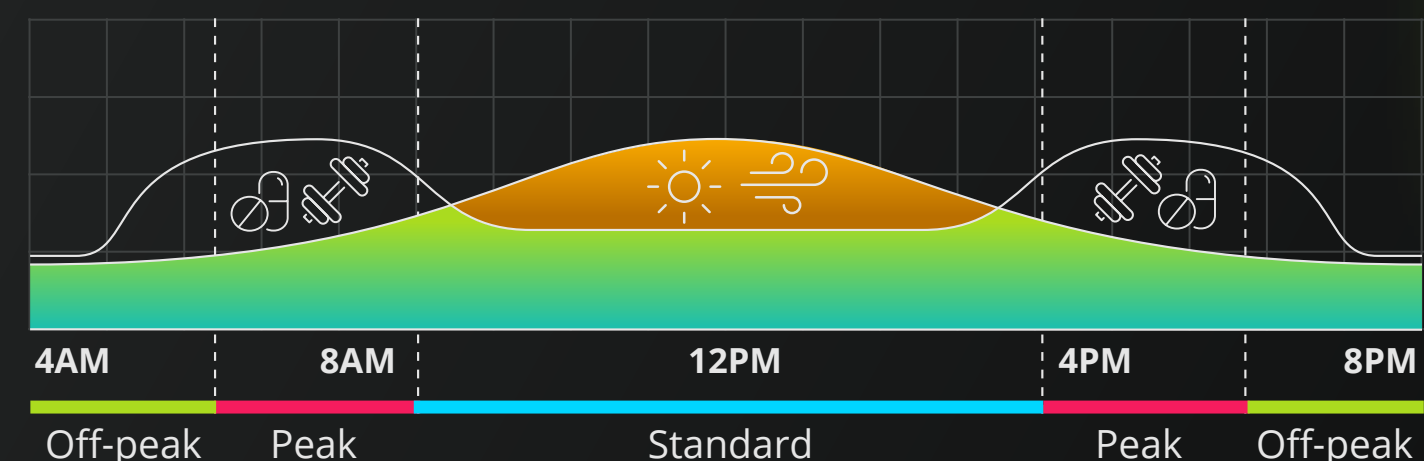
### Adding generation sources

Wind offers more stable generation over a 24-hour period. A generation profile that makes use of both solar PV and wind technology would better suit the gym's consumption needs and reduce the amount of wasted supply.



### Adding diversified industries

Further reductions in wasted renewable energy could be achieved if a business with a different consumption profile to the gym joined the wheeling arrangement. A pharmacy, for example, may have a consumption profile that is more heavily weighted to daytime hours. This blended demand between the two businesses would smooth out their combined consumption profile and reduce wasted renewable energy even further.



The increased scale in both demand and supply that is achieved by the platform is key to maximising a business' renewable energy coverage while avoiding wasted supply.

Importantly, in addition to matching generation and consumption over a 24-hour period, Discovery Green can mitigate against any seasonal volatility in power generation and consumption. Discovery Green's actuarial optimisation allows it to extract the benefits from smoothing and eliminate wasted energy to the benefit of all businesses on its platform.



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