

Network Exemption Guidelines Version 7 Appendix B: Applying for an individual exemption or condition variation

Please find below responses to the Australian Energy Regulator's questions in relation to the application lodged by Sustainable Asset Co Pty Ltd (The **Applicant**). This application relates to the Oakden Rise residential development where installation of HV electrical infrastructure for the first of up to ten stages began in July 2023. Stage one is scheduled to be completed, and ready for occupancy in October 2024.

Question	Response
<u>1 - The name of every party for whom exemption is sought</u>	<p>Sustainable Asset Co Pty Ltd (The Applicant) ████████████████████ ████████████████████ ████████████████████</p> <p>The Applicant will be the sole Owner of the network and will Operate and Control the network.</p>
<u>2 - Describe the nature of the normal business activities of the applicant</u>	<p>The Applicant was incorporated on 17 June 2022 for the purpose of creating an entity under which to first design the required infrastructure, then to Own, to Operate and Control a prospective broadacre, greenfield Embedded Electricity Network and Microgrid on residential development sites in South Australia.</p>
<u>3 - If the application is made by an authorised agent, proof of authority for the agent to act on behalf of each named applicant</u>	<p>Not Applicable</p>
<u>4 - the precise network to be subject to the exemption, including circuit diagrams if necessary (in most circumstances less complex single-line diagrams will be sufficient)</u>	<p>Oakden Rise (Corner Fosters and Grand Junction Roads, Oakden South Australia 5086)</p> <p>It is planned to develop approximately 150 homes annually, with a total of 1310 dwellings to be constructed. The development will also feature a residents' club.</p> <p>The Oakden Rise development Site map is attached as Annexure 1</p> <p>Please refer to Annexure 1 for circuit diagrams and line drawings of the proposed High Voltage and Low Voltage Exempt network within the site.</p>
<u>5 - a description of the parties connected to, or likely to connect to, or otherwise obtain</u>	<p>The parties that will be connected to the network will be</p> <ul style="list-style-type: none"> • Small Residential customers • Small Retail/Commercial customers. • Street Lights <p>The Applicant has been in constant dialogue with the Port Adelaide Enfield Council in regard to providing an acceptable Service Level Agreement (SLA) relating to public lighting where it is installed. Agreement has been reached on the SLA and also on the appropriate tariff and charging methodology.</p>

<p><u>services from the network</u></p>	<p>Street lighting connections will be provided to Port Adelaide Enfield Council. Attached in Annexure 3 (Confidential) is a copy of the executed SLA that will govern the supply of electricity to streetlights in a manner consistent with the Distribution Code.</p>
<p><u>6 - if an industrial or commercial situation, whether the proposed on-supply is subject to agreed commercial terms between consenting parties with appropriate recourse to professional advice</u></p>	<p>Not Applicable</p>
<p><u>7 = whether the applicants are seeking (or have received) exemptions from any other codes or regulations governing the ownership or operation of networks or metering requirements applicable within the relevant jurisdiction, including details of those exemptions or applications for exemptions</u></p>	<p>The Applicant has applied for a Distribution Licence to the Essential Services Commission of South Australia (ESCOSA).</p> <p>The application was published for public consultation. One comment was received from SAPN which is on public record.</p> <p>The SAPN comments were responded to without the need for further correspondence.</p> <p>SAPN has since issued the Connection Agreement for the Oakden site to the Applicant and the agreement has been fully executed by both parties. (Annexure 4 Confidential)</p>
<p><u>8 - whether they are seeking exemption from the requirement to register as an NSP or from the application of chapter 5 of the NER or if</u></p>	<p>The Applicant is seeking an exemption from the requirement to register as a Network Service Provider (NSP).</p>

<p><u>they are seeking to vary the conditions otherwise applicable to a defined exemption class (if so, which conditions and why a variation is justified)</u></p>	
<p><u>9 - details of the registered NSP to whom the network is, or will be, connected</u></p>	<p>The proposed exempt network will connect to the South Australian Power Network (SAPN) Distribution Network. Executed Connection Agreement attached as (Annexure 4 Confidential)</p>
<p><u>10 - details of any preliminary discussions which have taken place between the applicant and the NSP and if relevant, AEMO.</u></p>	<p>SAPN had provided the applicant with proposed construction drawings from their substation to the applicants proposed connection points. Attached in (Annexure 5) is the proposed construction works SAPN need to undertake to bring power to the Oakden Rise Site.</p>
<p><u>11 - the arrangements proposed for setting network charges for parties using the network</u></p>	<p>Please refer to the attached Embedded Network Pricing Policy (Annexure 6). We note that our Embedded Network Pricing Policy will apply whether [REDACTED] is the embedded network retailer.</p>
<p><u>12 - mailing details for all stakeholders affected by the grant of an individual exemption</u></p>	<p>Attn: Mr Steve Hazelwood [REDACTED] [REDACTED] [REDACTED]</p>
<p><u>13 - the arrangements proposed for electricity charges (for example, fixed percentage of total costs or direct access to retailers by tenants), and</u></p>	<p>The proposed electricity charges within the network will be direct access to retailers by tenants, via the embedded network. Please refer to the attached Embedded Network Pricing Policy (Annexure 6) and the attached (draft) Network Connection and Services Terms and Conditions (Annexure 7). In relation to a tenant's ability to connect a small-generation PV solar system please find attached our Small-Scale Solar PV Connection Policy (Annexure 8). We have made the strategic decision to guarantee a discount to the 'shadow price' of the LNSP. The benefit of doing so is that tenants will continue to realise a benefit from the embedded network even if they opt out. We believe this to be</p>

	<p>the first time this will have been offered within an embedded network, it is a demonstration of our commitment to ensuring a positive consumer experience.</p>
<p><u>14 - detailed supporting argument why exemption will serve the long-term interests of electricity consumers connected to the network and more generally, across the NEM.</u></p>	<p>The National Electricity Objective (NEO) aims to</p> <p>“to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to:</p> <ol style="list-style-type: none"> a. price, quality, safety, reliability and security of supply of electricity; and b. the reliability, safety and security of the national electricity system; and c. the achievement of targets set by a participating jurisdiction— <ol style="list-style-type: none"> I. for reducing Australia's greenhouse gas emissions; or II. that are likely to contribute to reducing Australia's greenhouse gas emissions.” <p>The proposed embedded network by the Applicant is consistent with this objective for the following reasons:</p> <p>Efficient investment:</p> <p>By installing its own local electricity network and community solar and future battery system, the Applicant will make efficient investment that reduces its costs to supply customers. These cost savings can then be passed onto customers in the form of the guaranteed ■■■ discount on Network Tariffs. The embedded network model also encourages customers to make efficient investments in rooftop solar by providing a fair feed-in tariff. This helps to promote efficient investment in renewable energy at a local level.</p> <p>Efficient operation:</p> <p>The embedded network will be operated by a dedicated embedded network operator to ensure it is run efficiently. The network operator will oversee the network, any future community battery and any customer solar PV to maximize efficiency. Customers also have the option of switching to a retailer of their choice, indicating the network will be operated with customer choice and control in mind. The embedded network will have an appointed embedded network manager to facilitate power of choice and those consumers who do exercise this right will continue to receive a benefit (in the reduced network tariff) from the embedded network.</p> <p>With regard to the reliability of the network, SUSTASCO intends to operate, we plan to employ a combination of technologies and methodologies to continuously monitor the network and ensure a seamless supply of electricity to all customers. This will include adhering to the Service Level Agreements (SLAs) for outages in the jurisdiction, including but not limited to:</p> <ol style="list-style-type: none"> i. Supervisory Control and Data Acquisition (SCADA) systems: These enable real-time monitoring of the status of underground distribution assets and provide instant alerts in the event of any outages. ii. Advanced Metering Infrastructure (AMI): These systems furnish in-depth information on energy usage, which can assist in detecting outages. iii. Automated Fault Detection and Location (AFDL) systems: These use algorithms to instantly identify and locate faults in the distribution network. iv. Field Crews: The Applicants' operations will involve deployment of contracted field crews to physically inspect the underground distribution assets and detect any issues that might lead to outages. v. Customer Feedback: Customer feedback also plays an important role in reporting outages. Customers can report outages through The Applicants dedicated phone line, email or an online reporting system.

During the design phase, the Applicant placed significant emphasis on the NEO and its reliability of supply. The primary design concept implemented for the site was the ring main configuration, which is a critical aspect of an 11KV HV electrical distribution network. In this configuration, the network is designed as a loop with multiple paths for electrical power to flow, offering redundancy and automatic rerouting in the event of a fault or outage.

The ring main configuration connects each customer to the network at two separate points, known as "feeder" points, which allows the switching through HV switching cubicles or through HV switches contained within the kiosk substation devices to redirect power through the other feeder line in the event of a fault or outage. This design feature provides redundancy and ensures that customers have access to power even during faults or outages, while also allowing for smaller network sections to be isolated for maintenance work without affecting the rest of the network.

Overall, the design of an 11KV HV electrical distribution network requires comprehensive analysis, planning, and design to ensure that the network is configured to provide reliable power to all customers. The ring main configuration is a vital feature that offers redundancy and flexibility, enabling the network to operate safely and efficiently under various conditions. The Applicant, upon receiving its Distribution License from ESCOSA, must abide by the Electricity Distribution Code in its entirety. We place a strong emphasis on adhering to Section 2 of the Code, which represents service standards for customer service and reliability of supply.

Moreover, the Applicant has engaged professional services from leading design engineers to design the site in accordance with the specifications created for these developments. This includes compliance with the South Australian Legislations and relevant Australian Standards, such as:

South Australian Legislations:

- vi. Electricity Act 1996 and Electricity (General) Regulations 2012
- vii. Electricity (Principles of Vegetation Clearance) Regulations 2010
- viii. Environment Protection Act 1993 and Environment Protection Regulations 2009
- ix. Development Act 1993 and Development Regulations 2008
- x. Telecommunications Act 1997 and Telecommunications Code of Practice 1997
- xi. Work Health & Safety Act 2012 and Work Health & Safety Regulations 2012

Standards Australia Publications:

- xii. AS 1141.11.1/Amdt 2 2016 Methods for sampling and testing aggregates Part 11.1: Particle size distribution sieving method
- xiii. AS 1345 1995 Identification of the contents of pipes, conduits and ducts
- xiv. AS 1931.1 1996 High voltage – Test techniques Part 1: General definition and test requirements
- xv. AS 2419.1 2017 Fire Hydrant Installations Part 1: System design, installation and commissioning
- xvi. AS 3798/Amdt 1 2008 Guidelines on earthworks for commercial and residential developments
- xvii. AS 4678/Amdt 2 2008 Earth-retaining structures
- xviii. AS 60038 2013 Standard voltages
- xix. AS/NZS 1477 2017 PVC pipes and fittings for pressure applications
- xx. AS/NZS 2032 2006 Installation of PVC pipe systems
- xxi. AS/NZS 2053.1 2016 Conduits and fittings for electrical installations Part 1: General requirements
- xxii. AS/NZS 2648.1 1995 Underground marking tape Part 1: Non-detectable tape
- xxiii. AS/NZS 3000 2018 Electrical Installations (known as the wiring rules)

- xxiv. AS/NZS 4026 2008 Electric cables – for underground residential distribution systems
- xxv. AS/NZS 4130/Amdt 1 2009 Polyethylene (PE) Pipes for Pressure Applications

Efficient use:

Customers can access electricity at a lower price, encouraging the efficient use of energy.

Embedded generation allows for efficiency on a macro scale, reducing reliance on the wider distribution system and on traditional generation assets.

Opportunities to install solar PV and access feed-in tariffs also promote more efficient energy use by giving people more options to manage their energy consumption.

The community is encouraged to investigate energy conservation efforts through awareness programs and incentives.

Consumers can be educated on the benefits of energy efficiency and encouraged to participate in demand response initiatives.

Long-term interests of consumers:

The guaranteed discount, opportunity to access solar and choice of retailers means the embedded network serves the long-term interests of consumers. As development stages are delivered to sustainable levels, we have the ability to investigate the potential of future community battery that will provide further energy security and backup supply for customers in the event of an outage.

The Applicant has engaged two reputable metering contractors who will be responsible for supplying and installing metering infrastructure. These contractors are active market participants and hold the necessary accreditations with the Australian Energy Market Operator (**AEMO**): MP and MDP. Their participant IDs are IHUBMDP and MDYMP, respectively. Both contractors will be utilising EDM I metering, a global provider of smart energy solutions and electricity metering products. EDM I offers a range of smart and interval meters with advanced features and communication capabilities. It is important to note that EDM I is NMI patterned approved and fully compliant with the Power of Choice initiative.

Furthermore, [REDACTED] billing engine is managed by Utilmate, a trusted third-party provider renowned for their expertise in the billing space. Following a thorough due diligence process, we selected Utilmate based on their industry reputation and their alignment with the requirements set forth by the AER. Utilmate's meter data management, billing, and customer management service is specifically designed for AER authorised and exempt retailers. Utilmate has engaged compliance and energy legal specialised advisers, fully conversant with the appropriate and applicable Australian energy consumer regulations and law ensuring a professional, compliant and reliable solution.

Regarding electricity invoices, the AER has established a comprehensive set of rules, the Better Bills Guideline that prescribe the necessary information to be included. This includes displaying applicable concession or rebate schemes, any amounts deducted or credited, electricity consumption benchmarks to compare customers within the embedded network, greenhouse gas savings, and cumulative saving totals. Additionally, all authorised retailers must adhere to hardship rules and provide customers with payment plan options, allowing them to pay in instalments over a specified period.

With Utilmate's billing engine, coupled with the advanced smart metering infrastructure being implemented, we are confident in our collective ability to offer greater flexibility to customers compared to those directly connected to the grid. [REDACTED] billing system allows for various pricing options providing enhanced choices and benefits to customers.

Price:

Customers will receive a discount on their network charges resulting in a lower overall bill. This is consistent with the NEO objective regarding price.

Quality, safety, reliability and security:

The embedded network, with a dedicated manager and reputable contractors, will be set up and run to ensure quality, safety, reliability and security for consumers. The potential of a future community battery will also provide energy security.

Ensuring the safety of the public, workers, and infrastructure is paramount. The Applicant adheres to rigorous safety standards and protocols, conducting regular inspections of equipment and systems. The Applicant's contractor engagement protocols ensure that any contractors personnel are meticulously trained and strictly follow safety protocols to mitigate electrical accidents and hazards. The Applicant understands that safety is a journey and works tirelessly to all aspects of safety performance. To enhance good safety culture, The Applicants parent Company [REDACTED] utilises industry experts such as Safety Circle and are seeing its safety performance continue to lift. [REDACTED] safety record is very good, with no LTIs in over 18 months, strong incident / hazard report and an engaged workforce.

The achievement of targets set by a participating jurisdiction—

i. for reducing Australia's greenhouse gas emissions;

- The developments' Embedded Network grid supply will be contracted to an on-market retailer providing guaranteed 100% green power to the environment, at no cost to customers. This is combined with residential solar generation plants that can be managed through household batteries.
- The community centre will be fitted with a rooftop solar generation plant.
- The result being that the entire development becomes a long term carbon free environment with zero greenhouse gas emissions from both on-site generation and from any grid supply.

Or

ii. that are likely to contribute to reducing Australia's greenhouse gas emissions.

- It can be noted that in South Australia, the location of the Oakden Rise embedded network, it is generally accepted that the existing electricity distribution infrastructure has reached the stage where the average asset age range is approaching 37 years with many assets exceeding 80 years.
- Large volumes of residents' electricity consumption from solar generated electricity
- Household based EV Charging supported by household batteries.
- The creation of an almost self-supporting electricity consumption environment, drawing minimum electricity from the grid will lessen the burden on the local network assets, enabling SAPN to attend to infrastructure upgrades in areas more needing upgrade attention.
- The Oakden embedded network site and others like it are importantly instrumental in contributing to the reduction of Australis greenhouse gas emissions.

SAC is committed to environmental sustainability and the reduction of greenhouse gas emissions. Our embedded network at Oakden Rise is designed to leverage renewable energy sources, thereby contributing to significant emission reductions. The distinct benefits of our embedded network in terms of emission reductions are estimated as follows:

1. **100% GreenPower Supply:** SAC has secured a Large Market Retail Supply Agreement (LMRSA) with an on-market retailer to supply 100% GreenPower at the gate meter for the Oakden Rise development site. This ensures that all electricity supplied to the embedded network is sourced from renewable energy, resulting in zero emissions from electricity consumption.

2. **Solar PV Systems:** Each home in the Oakden Rise development is mandated to install a minimum 1.5 kW solar PV system. Based on the average solar radiation in South Australia and the efficiency of modern solar PV systems, we estimate that each 1.5 kW system will generate approximately 2,190 kWh per year. With an average greenhouse gas emission factor for grid electricity in South Australia of approximately 0.4 kg CO₂-e/kWh, the solar PV systems will collectively reduce emissions by approximately 0.4 kg CO₂-e x 2,190 kWh x number of homes annually.

3. **Energy Efficiency Measures:** The Oakden Rise development is aiming for a 7 Star Green Star Rating, which includes energy efficiency measures that reduce overall energy consumption. These measures, such as LED lighting, energy-efficient appliances, and improved insulation, contribute to lower energy usage and corresponding emission reductions.

The basis for our calculations is derived from the following sources:

- The Clean Energy Council's data on average solar generation for systems installed in South Australia.
- The Australian Government's National Greenhouse Accounts Factors, which provide emission factors for electricity consumption.

To provide a specific quantification, we would require the total number of homes within the Oakden Rise development. However, using the above estimates and assuming a development size of 100 homes, the emission reductions from the solar PV systems alone would be approximately 87,600 kg CO₂-e per year (0.4 kg CO₂-e x 2,190 kWh x 100 homes).

It is important to note that these figures are estimates and actual emission reductions will depend on various factors, including the final number of homes, the actual energy consumption patterns of residents, and the performance of installed solar PV systems.

The embedded network facilitates the integration of renewable energy sources and energy efficiency measures more effectively than traditional energy supply models. This is due to the embedded network's ability to operate as a microgrid, which can manage and optimise the use of locally generated renewable energy, such as solar PV systems installed on each home. By doing so, the embedded network reduces reliance on grid-supplied electricity, which in South Australia is still partially generated from fossil fuels, thereby contributing to greater emission reductions.

Furthermore, the embedded network allows for the bulk purchase of 100% GreenPower for all residents at a negotiated rate, which would not be as economically feasible on an individual household basis. This collective approach ensures that all electricity consumed within Oakden Rise is sourced from renewable energy, leading to a significant reduction in greenhouse gas emissions.

While individual homes with solar PV systems can contribute to emission reductions independently of the embedded network, the network's ability to coordinate and optimise these systems across the entire development amplifies the environmental benefits. Additionally, the potential future integration of other technologies, such as community batteries and demand response systems, would further enhance emission reductions and is more viable within an embedded network structure.

SAC is proud of the environmental benefits our embedded network will deliver, and we are committed to ongoing monitoring and reporting of emission reductions as part of our sustainability initiatives.

Per instruction from letter received, we have taken the questions asked, in correspondence between SAC and the AER (06.12.2023) and have tabled these below:

Question	Response
<p>1. Any distinct benefits Oakden Rise customers will receive under the embedded network that might offset their limited choice of retailer and the fact they are not connected to the distribution network and therefore do not receive the same consumer protections</p>	<p>Sustainable Asset Co (SAC) is committed to ensuring that the residents of Oakden Rise benefit significantly from the embedded network model. The application lodged by SAC is consistent with the National Energy Objective.</p> <p>Embedded networks on the scale contemplated are already in existence in the NEM. We note that we have identified embedded networks at a 'suburb' level that are purportedly operating under registerable exemptions. By way of background, SAC obtained counsel's advice on whether a registerable exemption was available to it with consideration of the meaning of the term <i>site</i> (in SA).</p> <p>That advice indicated that the project may have proceeded on the basis of registerable exemptions. The primary concern of the barrister was that we ensure that we complete the relevant registerable exemption form with an appropriate description of the site address. A decision was, nonetheless, made to apply for an individual exemption. We believed this to be the right decision including so that appropriate exemption conditions could be applied and to ensure that the AER was aware of and had a complete understanding of the proposed project.</p> <p>When applying the NEO, we submit that the appropriate considerations that the AER should apply are contained within the applicable regulatory documents i.e. the NER, the NERL, the current version of the 'Electricity Network Service Provider - Registration Exemption Guideline', in our application and submissions, and in submissions from third parties.</p> <p>Any contradistinction between SAC's project and the existing distribution network is only useful and appropriate in so far as it is consistent with the regulatory framework. In any event, we are confident that we can deliver NEO outcomes that exceed those that would apply in that comparison.</p> <p>When considering what SAC is proposing within this project to what is 'permissible' under the AER's Electricity Network Service Provider - Registration Exemption Guideline, in all respects we exceed rather than meet these.</p> <p>The establishment of the embedded network will result in the following consumer benefits:</p> <p>1. Competitive Pricing: Our retail partner guarantees that energy pricing will be a minimum of ■■■ lower than the rates offered by the major energy retailers, namely Origin Energy, AGL, and Energy Australia. This commitment is enshrined in our residential retail contract, ensuring that our customers enjoy financial savings on their energy bills.</p> <p>2. GreenPower at No Extra Cost: SAC has entered into a Large Market Retail Supply Agreement (LMRSA) with an on-market retailer for the supply of 100% GreenPower at the gate meter for the Oakden Rise development site. This innovative approach allows us to provide GreenPower to</p>

		<p>our customers without the usual premium, supporting the affordability aspect of the National Electricity Objective (NEO).</p> <p>3. Solar PV and Battery Integration: Residents with solar PV systems and/or home batteries will continue to access various services, such as receiving the same benefits for excess generation as those within the embedded network. This ensures that customers who contribute to sustainable energy production are duly rewarded.</p> <p>4. Advanced Metering Infrastructure: The installation of smart child meters enables customers to become on-market customers and switch retailers if they choose, providing them with the power of choice while also benefiting from the embedded network's efficiencies.</p> <p>5. Customer Service Excellence: Our customer service teams, based locally in Australia, have extensive knowledge of the site and have received comprehensive training to provide utility-grade, high-quality service. This local expertise enhances the customer experience and ensures that any issues are resolved promptly and effectively.</p> <p>6. Environmental Sustainability: The embedded network facilitates the efficient use of renewable energy sources, contributing to a greener energy future and aligning with the Australian Federal Government's policy of reaching net zero emissions by 2050.</p> <p>7. Community Benefits: The embedded network model fosters a sense of community and collective benefit, as residents are part of a microgrid that is designed to be stable, affordable, and environmentally sustainable.</p> <p>8. Regulatory Compliance: SAC is dedicated to operating within the applicable frameworks and guidelines from the AER, ensuring that while some consumer protections may differ, the essential services provided are reliable and meet high standards.</p> <p>The establishment of the embedded network will enable emissions reduction measures to be implemented that will not otherwise be implemented. Specifically, should the embedded network not be established:</p> <p>1. Individual CER: Each consumer will need to negotiate the installation and connection of their own energy storage and solar PV systems, whereas we will negotiate on behalf of all consumers with SAPN for the maximum connection possible.</p> <p>2. Maximised self-consumption: Solar energy that is not consumed at an individual consumer level will be exported, and the value of exported solar is minimal (or negative). In contrast, solar energy is consumed within the embedded network before being exported to the wider distribution network, hence more of it is consumed.</p> <p>3. Future technologies and innovations: Technology that assists the whole community would not be possible without an embedded network. An embedded network will enable us to continue to explore and implement technologies such</p>
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	<p>3. Describe the distinct benefits which the remaining energy sources will provide to Oakden Rise customers, in terms of security and reliability of energy supply, which they would not also have available if they were directly connected to SA Power Networks.</p>	<p>Sustainable Asset Co (SAC) would like to highlight the following:</p> <ol style="list-style-type: none"> 1. Dedicated Infrastructure: SAC has established a Connection Agreement with the local Distribution Network Service Provider (DNSP), SAPN, to provide power to Oakden Rise via two dedicated and separate High Voltage (HV) Feeders from the upgraded Oakden Rise Zone Substation. This infrastructure is designed to ensure a secure and reliable supply of electricity to the development, now and into the future. 2. Advanced Technologies: SAC is actively exploring and investing in 'behind the meter' technologies and solutions that can decrease reliance on the grid and provide further energy security to its consumers. This includes the efficient provisioning, ownership, and management of infrastructure requirements, coordinating Solar Generation to Battery Energy Storage Systems (BESS), and Demand Management through a Microgrid Controller. 3. Green Energy Commitment: The intending retailer, ██████████ will provide our customers with GreenPower from the grid at a lower cost than the standard rate by entering into a Large Market Retail Supply Agreement (LMRSA) with an on-market retailer for the supply of 100% Green Power at the gate meter for the Oakden Rise development site. The cost of the GreenPower will be amortised across the LMRSA contract base and included within the retail contract pricing, ensuring that our customers have access to affordable and renewable energy. 4. Microgrid Capabilities: As an embedded network, Oakden Rise operates as a microgrid, which can manage its energy production and consumption more efficiently than traditional grid systems. This can lead to improved energy reliability and the potential for islanding capabilities during broader network outages, providing an uninterrupted power supply to residents. 5. Localised Management and Control: The embedded network allows for localised management and control of energy distribution, which can lead to quicker response times and resolution of localised outages or issues, as opposed to relying on the broader SAPN network response protocols. 6. Community Battery Potential: While the implementation of a community battery is not currently feasible, SAC remains open to considering this technology in the future as it emerges. A community battery could provide additional reliability and energy security by storing excess solar energy generated during the day for use during peak periods or outages. <p>SAC is committed to ensuring that the Oakden Rise development is at the forefront of energy innovation and sustainability. Our approach aligns with South Australia's aspiration to achieve 100% net renewables by 2030, and we are dedicated to providing our customers with a secure, reliable, and sustainable energy supply that supports the</p>
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		<p>long-term interests of South Australian consumers with respect to price, quality, and reliability of essential services.</p>
	<p>4. To what extent will Oakden Rise customers will be able to integrate Consumer Energy Resources within SUSTACOs proposed embedded network (other than small-scale solar PV and battery storage systems).</p>	<p>Sustainable Asset Co (SAC) is dedicated to fostering an environment where a variety of CERs can be integrated into our embedded network, thereby enhancing energy efficiency, sustainability, and consumer empowerment. We are actively exploring opportunities to incorporate additional CERs, which may include but are not limited to:</p> <ol style="list-style-type: none"> 1. Electric Vehicle (EV) Charging: With the provision of electrical outlets in garages capable of providing charging for electric vehicles, residents will be able to integrate EV charging within their energy management systems. This aligns with Oakden Rise's sustainability requirements and supports the transition to low-emission transportation. 2. Demand Response Technologies: We are considering the implementation of demand response technologies that allow customers to participate in demand management programs. These technologies can adjust consumption patterns in response to grid conditions or market signals, providing both network support and potential cost savings for consumers. 3. Smart Home Devices: The integration of smart home devices and appliances that can be controlled to optimise energy use is another area we are exploring. These devices can contribute to the overall energy efficiency of the household and the embedded network as a whole. 4. Energy Management Systems: We encourage the use of energy management systems that allow residents to monitor and control their energy consumption. These systems can be integrated with the smart child meters installed in each property, providing detailed insights into energy usage patterns. 5. Renewable Energy Certificates (RECs): While not a physical CER, the ability for residents to trade or utilise RECs generated from their renewable energy systems can be facilitated within the embedded network structure, providing an additional avenue for consumer engagement and benefit. <p>SAC is committed to ensuring that the embedded network at Oakden Rise is not only compliant with current regulations but is also adaptable to future technological advancements and consumer needs. We believe that the integration of diverse CERs is essential to achieving a sustainable and resilient energy future for our customers.</p>
	<p>5. Provide any further evidence of UCS Groups ongoing financial support to SUSTACO (by way of guarantee or other instrument) which could be</p>	<p>We confirm that UCS Group has provided a formal guarantee to support the financial obligations of SAC. This guarantee serves as a testament to the strong backing SAC receives from its parent company and underscores the commitment of UCS Group to the success and sustainability of SAC's operations.</p> <p>The guarantee provided by UCS Group is a legally binding instrument, enforceable under the relevant laws and regulations. It ensures that, in the unlikely event of financial</p>

	<p>relied upon and is enforceable?</p>	<p>distress, UCS Group will fulfill the financial commitments of SAC, thereby safeguarding the continuity of service and operations at Oakden Rise.</p> <p>We have attached a copy (Annexure 10) of the guarantee document for your reference, which outlines the terms and conditions under which UCS Group's financial support is extended to SAC. This document has been executed by duly authorized representatives of both UCS Group and SAC, ensuring its validity and enforceability.</p> <p>We trust this response, along with the attached guarantee document, provides the assurance you require regarding the ongoing financial support from UCS Group to SUSTACO. We remain committed to maintaining a robust financial foundation for our operations and to meeting our obligations to our customers and stakeholders.</p>
	<p>6. Could you please quantify the distinct benefits which SUSTACOs proposed embedded network will provide by way of estimated emission reductions, and outline the basis for your calculations?</p>	<p>SAC is committed to environmental sustainability and the reduction of greenhouse gas emissions. Our embedded network at Oakden Rise is designed to leverage renewable energy sources, thereby contributing to significant emission reductions. The distinct benefits of our embedded network in terms of emission reductions are estimated as follows:</p> <ol style="list-style-type: none"> 100% GreenPower Supply: SAC has secured a Large Market Retail Supply Agreement (LMRSA) with an on-market retailer to supply 100% GreenPower at the gate meter for the Oakden Rise development site. This ensures that all electricity supplied to the embedded network is sourced from renewable energy, resulting in zero emissions from electricity consumption. Solar PV Systems: Each home in the Oakden Rise development is mandated to install a minimum 1.5 kW solar PV system. Based on the average solar radiation in South Australia and the efficiency of modern solar PV systems, we estimate that each 1.5 kW system will generate approximately 2,190 kWh per year. With an average greenhouse gas emission factor for grid electricity in South Australia of approximately 0.4 kg CO₂-e/kWh, the solar PV systems will collectively reduce emissions by approximately 0.4 kg CO₂-e x 2,190 kWh x number of homes annually. Energy Efficiency Measures: The Oakden Rise development is aiming for a 7 Star Green Star Rating, which includes energy efficiency measures that reduce overall energy consumption. These measures, such as LED lighting, energy-efficient appliances, and improved insulation, contribute to lower energy usage and corresponding emission reductions. <p>The basis for our calculations is derived from the following sources:</p> <ul style="list-style-type: none"> - The Clean Energy Council's data on average solar generation for systems installed in South Australia. - The Australian Government's National Greenhouse Accounts Factors, which provide emission factors for electricity consumption.

		<p>To provide a specific quantification, we would require the total number of homes within the Oakden Rise development. However, using the above estimates and assuming a development size of 100 homes, the emission reductions from the solar PV systems alone would be approximately 87,600 kg CO₂-e per year (0.4 kg CO₂-e x 2,190 kWh x 100 homes).</p> <p>It is important to note that these figures are estimates and actual emission reductions will depend on various factors, including the final number of homes, the actual energy consumption patterns of residents, and the performance of installed solar PV systems.</p> <p>SAC is proud of the environmental benefits our embedded network will deliver, and we are committed to ongoing monitoring and reporting of emission reductions as part of our sustainability initiatives.</p>
	<p>7. Could you please advise whether achieving emission reductions is dependent on the development being an embedded network?</p>	<p>Sustainable Asset Co (SAC) would like to clarify that the achievement of emission reductions is indeed enhanced by the embedded network model, as outlined above and below.</p> <p>The embedded network facilitates the integration of renewable energy sources and energy efficiency measures more effectively than traditional energy supply models. This is due to the embedded network's ability to operate as a microgrid, which can manage and optimise the use of locally generated renewable energy, such as solar PV systems installed on each home. By doing so, the embedded network reduces reliance on grid-supplied electricity, which in South Australia is still partially generated from fossil fuels, thereby contributing to greater emission reductions.</p> <p>Furthermore, the embedded network allows for the bulk purchase of 100% GreenPower for all residents at a negotiated rate, which would not be as economically feasible on an individual household basis. This collective approach ensures that all electricity consumed within Oakden Rise is sourced from renewable energy, leading to a significant reduction in greenhouse gas emissions.</p> <p>While individual homes with solar PV systems can contribute to emission reductions independently of the embedded network, the network's ability to coordinate and optimise these systems across the entire development amplifies the environmental benefits. Additionally, the potential future integration of other technologies, such as community batteries and demand response systems, would further enhance emission reductions and is more viable within an embedded network structure.</p>

An application for an individual exemption must be made in writing and may be submitted to AERexemptions@aer.gov.au. A variation of conditions application must explain why the pre-defined conditions will result in an excessive regulatory burden and demonstrate how relief from the conditions will better serve customers. We may request additional information from applicants prior to processing an application for exemption.

We are empowered to consult affected stakeholders on any application for exemption. As stated in section 6 we may seek written submissions on the application from interested stakeholders via a notice on our website. Applications may contain confidential information. If so, a redacted version of each submission is required in a form suitable for publication electronically should the AER elect to consult widely on a particular application. We will inform the applicant of our decision regarding the application for the grant or variation of the individual exemption. The individual exemption applies to a person for a particular site from the time stated in a notice issued by the AER and entered on the Public Register of Exempt Networks.

An individual exemption is personal to the applicant and does not apply to any other person that owns, controls or operates the network at the time of the decision or in the future. An individual exemption is not transferrable; however, we accept the need for transitional arrangements.

Where an application for individual exemption is for a network previously registered with us and we have not revoked that registration, the terms of the pre-existing arrangement will continue to apply to the new applicant until the effective date of a new exemption notified by us in response to the application