

Business Plan

Dunamis Power Dynamics (DPD)

Espiritu Santo

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1. Executive Summary



Dunamis Power Dynamics (DPD) will establish a comprehensive electrical services company on Espiritu Santo, Vanuatu, focusing on two main areas:

1. Execution of main grid and autonomous solar installations in the private, corporate and public sectors.
2. Introduction and distribution of innovative and cutting-edge technologies in the energy sector as sole distributor for Melanesia. These being: -
 - a. Cutting-edge containerised, cyclone-proof, high-output, portable solar generation stations with associated comprehensive monitoring, management, maintenance, installation and servicing technologies
 - b. Industry preferred solar batteries with associated installation, management, maintenance and servicing technologies

2. Mission Statement:

To provide dynamic, innovative, cutting-edge and sustainable electrical energy solutions to private, corporate and public sectors alike.

3. Company Description



Business Name:

Dunamis Power Dynamics (DPD)

Legal Structure:

The initial structure is a Propriety Limited Liability Company.

Seeing that this is a Greenfields start-up initiative, so to speak, and depending on anticipated Joint Venture developments and Intellectual Property valuation, this structure may form part of a more detailed organisational structure.

Location:

Head office
P O Box 209,
Luganville, Espiritu Santo Island, Vanuatu

Physical address,
Reach Vanuatu, Natanara, Espiritu Santo Island, Vanuatu

Email info@dpdynamics.online
Vanuatu Mobile +678 592 0404
Australian mobile +61 427066540

Provisional web page under development: -
<https://dunamispowerdynamics.weebly.com/>

4. Management and Organization

- Owner/Manager:

Marius Vogel
See CV in addendum

- Senior Electrician at Rio Tinto with extensive experience.



85% initial shareholding as CEO and Charman of the board of Directors

- This allows for a significant opportunity for acquisition of shares by JV partners such as from those who have provided sole distribution rights and others interested in investing and stock holdings.

- International Strategic Planner (ISP):

Izak Labuschagne

- Responsible for general administrative oversight, Local and international strategic planning, government relations, PPP engagement and oversight, securing international partnerships, funding and insurance.
- He will have a 10% shareholding with position on the board of directors.

- Local Operations Manager

- Benny Van Wyk is a specifically trained and gifted expert in the field imported from South Africa for this role.
- He will have a 5% Shareholding. See CV attached hereto.

- Financial Controller

Filled by ISP until full time position filled by someone to be employed from Vanuatu.

Installation, service, maintenance and component management

Benny Van Wyk. Bennie is a specifically trained and gifted expert in the field imported from South Africa for this role. He will have a 5% Shareholding. See CV attached hereto.

5. Products and Services



1. Distribution of advanced solar equipment:

1. Distribution of cutting-edge popular solar batteries and associated installation, management, maintenance and servicing technologies

2. Cyclone-proof, high-output, portable containerized solar generation station and associated cutting edge installation, management, maintenance and servicing technologies

2. Grid and solar installation services:

1. Residential grid and solar system installations
2. Commercial grid and solar system installations
3. Public grid and solar system installations

3. Electrical contracting services:

1. Private grid linked installations
2. Commercial electrical installations
3. Government project electrical work
4. Solar installation in all three sectors

5. Market Research

General Energy Demand



Based on the **Vanuatu Energy Demand Projections** report ^[1], energy consumption in Vanuatu is expected to double in the coming 15 years.

This presents a significant opportunity for renewable energy solutions.

The report also highlights that if Vanuatu doesn't achieve its renewable energy targets, petroleum consumption for electricity would increase by 24% between 2015 and 2030, instead of the projected 62% decrease under the business-as-usual scenario.

New entrant research

As to the question: - How much work would there be for a new entrant in independent electrical installations (residential and commercial) in Vanuatu based on building statistics?

Based on the available information, there appears to be **significant potential for a new entrant in independent electrical installations** (both residential and commercial) in Vanuatu, though exact building statistics are not provided. Here's an analysis of the opportunities:

1. Growing Construction Sector:

Vanuatu is experiencing increased demand for buildings, both residential and commercial. The Ministry of Construction predicts a significant rise in housing demand in the coming years, indicating a growing market for electrical installations.

2. Sustainable Development Focus:

There's a strong emphasis on sustainable construction and eco-friendly architecture in Vanuatu. This trend towards green buildings often requires specialized electrical installations for energy-efficient systems, creating opportunities for electricians with expertise in sustainable technologies.

3. Infrastructure Projects:

The Vanuatu Infrastructure Strategic Investment Plan (2015-2024) lists 26 priority projects across various sectors with a total estimated cost of \$406.8 million. Many of these projects likely require electrical work, providing opportunities for commercial installations.

4. Renewable Energy Projects:

Vanuatu is actively pursuing renewable energy goals, with several ongoing and planned projects like the South Tarakae Solar Project and various hydropower initiatives. These projects create demand for specialized electrical installation services.

5. Rural Electrification:

There's a push to expand electricity access in rural areas through projects like the Vanuatu Rural Electrification Project. This effort could provide substantial work for electrical contractors.

6. Building Code Implementation:

While the National Building Code of Vanuatu exists, there are concerns about its inadequate application in many private reconstruction situations and new builds. This suggests a need for qualified electrical contractors who can ensure compliance with proper standards.

7. Market Capacity:

From 2018 to 2022, local contractors received 58% of the total value (\$47.3 million out of \$82.2 million) of ADB and World Bank-funded contracts. This indicates a significant role for local contractors in infrastructure projects, which likely includes electrical work.

8. Diverse Project Types:

The construction market in Vanuatu includes various types of projects such as buildings, roads, maritime works, and sanitation infrastructure. Each of these sectors requires electrical installations to some degree.

While specific building statistics are not provided, the overall trend suggests a growing market with diverse opportunities for electrical installation work. The focus on sustainable development, infrastructure improvement, and rural electrification creates a favourable environment for new entrants in the electrical installation field. However, it's important to note that the market size is relatively small compared to larger countries, and competition from existing contractors should be considered.

Citations

Renewable Energy Projects

There are several new renewable energy projects planned or currently underway in Vanuatu:

1. South Tarakae Solar Project:

This is one of the most significant upcoming projects, expected to generate 300 kilowatts of electricity when completed. The project is being developed by the Vanuatu Government and will significantly increase the country's solar power capacity [1].

2. Mele Cascades Hydro Project:

This project is expected to generate 80 kilowatts of electricity when completed. It is being developed by PowerHouse Company, an Australian renewable energy company, and will increase Vanuatu's hydropower capacity[1].

3. Vanuatu Green Transformation (VGET) project:

Part of a Japan-funded initiative, this project aims to establish pico-hydro power stations at Waterfall, Melsisi, and Larimat on Pentecost Island. The project will provide reliable energy sources to communities, benefiting 2,366 people directly and 6,000 indirectly[2].

4. Circular Economy Solar E-Waste Project:

This initiative aims to tackle the growing issue of solar e-waste in Vanuatu. It involves a partnership between the University of New South Wales, Vanuatu Disability Promotion Advocacy Association, Vanuatu Institute of Technology, and the Vanuatu Department of Energy, in collaboration with the Australian Government[3].

5. Vanuatu Energy Access Project (VEAP):

This ongoing project includes:

1. The recently commissioned 400-kilowatt **Brenwe hydropower plant** in Malekula.
2. 45 kilometres of **new transmission and distribution lines** from Turtle Bay to Port Olry in Santo, which were recently commissioned.
3. Plans for **additional low-voltage lines in Santo and Malekula** to connect more households ^{[4][5]}.

These projects align with Vanuatu's **National Energy Road Map (NERM)** goal of achieving 100% electrification with renewable energy by 2030[2].

The government and international partners are actively working to increase renewable energy capacity and access across the country, particularly in rural and remote areas.

Citations:¹

6. Sole Distribution and Agency agreements

As to the question: - How will securing the distribution or agency rights for cutting edge cyclone proof high KW output portable containerised solar generation stations and the most popular (South African) solar batteries being used by solar installers in Vanuatu be for these projects and the private sector business that is able to achieve that?

Securing distribution or agency rights for advanced cyclone-proof, high-output portable containerized solar generation stations and popular South African solar batteries could be highly advantageous for renewable energy projects and private sector businesses in Vanuatu for several reasons:

¹ [1] <https://www.blackridgeresearch.com/new-projects-near-me/renewable-energy-database/announced-upcoming/vanuatu>
[2] <https://www.undp.org/pacific/projects/green-transformation-project>
[3] <https://www.aifff.gov.au/news/powering-pacific-and-timor-leste-three-new-grid-renewable-energy-partnerships>
[4] <https://www.adb.org/projects/49450-008/main>
[5] <https://solarquarter.com/2024/08/08/adb-and-vanuatu-government-commission-santo-transmission-line-to-enhance-renewable-energy-access/>
[6] <https://policy.asiapacificenergy.org/node/2985>
[7] <https://www.unsw.edu.au/challeng/humanitarian-engineering/global-impact-stories/solar-energy-project-helps-remote-vanuatu-villages>
[8] <https://www.blackridgeresearch.com/new-projects-near-me/infrastructure-development-database/c/vanuatu>

1. Resilience to natural disasters:

Vanuatu is prone to cyclones and other extreme weather events. Cyclone-proof solar generation stations would be particularly valuable in ensuring a stable power supply even during and after natural disasters ^[4].

2. Meeting renewable energy goals:

These technologies could help Vanuatu progress towards its goal of transitioning to close to 100% renewable energy for electricity by 2030 ^[4]. The high-output portable systems could be especially useful in reaching remote areas.

3. Addressing energy access challenges:

With many rural areas lacking electricity access, portable containerized solar stations could provide a flexible solution for electrifying remote communities ^[4].

4. Supporting existing projects:

These technologies could complement and enhance ongoing renewable energy initiatives, such as:

- The Vanuatu Energy Access Project (VEAP) ^[6]
- Community-run solar power stations like the one in Wintua and Lorlow ^[4]
- UNSW's Énergie Renouvelable project on Tanna Island ^[5]

5. Business opportunities:

There's likely to be significant demand for reliable, high-performance solar equipment, both from government projects and private sector initiatives. Being the distributor for cutting-edge technology could position a company as a key player in Vanuatu's renewable energy market.

6. Cost-effectiveness:

High-quality solar batteries, like those popular in South Africa, could help reduce the overall cost of solar installations by improving efficiency and lifespan ^[1].

7. Supporting economic development:

Reliable, portable power solutions could boost various sectors of the economy, from agriculture to small businesses, by providing consistent energy access ^[4] .

8. Alignment with government initiatives:

These technologies would align well with the Vanuatu government's plans to embark on a comprehensive programme to electrify most inhabited islands through renewable energy ^[4].

9. Potential for regional expansion:

Success in Vanuatu could potentially lead to opportunities in other Pacific Island nations facing similar energy challenges.

10. Environmental benefits:

By promoting clean energy solutions, this business venture would contribute to reducing Vanuatu's dependence on imported fossil fuels and decrease greenhouse gas emissions ^[2] .

Given the ongoing renewable energy projects and Vanuatu's commitment to sustainable development, securing rights for these advanced solar technologies could be a highly strategic move for a private sector business. It would not only support national energy goals but also potentially capture a significant market share in a growing sector.

Citations:²

² [1] <https://www.majesticsolar.net/vanuatu/lifepo4-12v-100ah-battery.html>

[2] <https://www.blackridgeresearch.com/new-projects-near-me/renewable-energy-database/announced-upcoming/vanuatu>

[3] <https://www.victronenergy.com/blog/2020/05/15/blue-power-in-vanuatu/>

[4] <https://www.undp.org/pacific/news/vanuatu-launches-countrys-first-ever-community-run-solar-power-station>

[5] <https://www.unsw.edu.au/challeng/humanitarian-engineering/global-impact-stories/solar-energy-project-helps-remote-vanuatu-villages>

[6] <https://solarquarter.com/2024/08/08/adb-and-vanuatu-government-commission-santo-transmission-line-to-enhance-renewable-energy-access/>

7. Market Analysis



Target Markets:

1. Residential customers interested in solar power
2. Private businesses seeking sustainable energy solutions
3. Construction companies requiring electrical services
4. Government agencies involved in renewable energy projects

Market Trends:

1. Increasing focus on renewable energy in Vanuatu
2. Growing construction sector
3. Government initiatives for rural electrification
4. Emphasis on cyclone-resistant infrastructure

Unique Market Position:

1. Direct access to key decision-makers in Vanuatu's energy sector through the ISP's connections
2. Ability to influence and align with national energy policies and initiatives
3. Potential to secure international aid and investment for large-scale projects

8. Marketing and Sales Strategy



1. Establish partnerships with local construction companies and government agencies
2. Participate in renewable energy and construction trade shows
3. Develop a strong online presence highlighting our unique product offerings
4. Offer free consultations for potential large-scale projects

[7] <https://www.inpower.co.za/blogs/best-solar-battery-in-south>

[8] <https://www.undp.org/pacific/projects/green-transformation-project>

5. Leverage ISP's connections to secure contracts for government and large-scale private sector projects
6. Participate in international forums and conferences on renewable energy and climate change
7. Develop proposals for UN aid agencies and other international funding bodies
8. Collaborate with the Vanuatu government on implementing the National Energy Roadmap

Target Market

1. Government agencies involved in renewable energy projects ^[4] .
2. Private businesses seeking sustainable energy solutions.
3. Rural communities without electricity access (83% as of 2013) ^[3] .
4. Construction companies requiring electrical services.
5. International aid agencies and development partners investing in Vanuatu's energy sector ^[4] .
6. Existing solar installations needing renewal due to having reached the end of their lifecycle.
7. Existing solar installations requiring expansion and upgrades. This comprises of a very large segment of the market share of the company's supplying products under sole distribution rights for the entire area of Melanesia.

Market Position

DPD will position itself as a leading provider of comprehensive renewable energy solutions in Vanuatu and Melanesia, leveraging its unique combination of advanced technology, local expertise, and international strategic connections.

PEST Analysis

Political

- Vanuatu's **National Energy Road Map (NERM)** aims for 100% renewable energy by 2030 ^[1] .

- Supportive government policies for renewable energy investments ^[4] .
- Stable political environment encouraging foreign direct investment.

Economic

- High dependence on imported fossil fuels, creating an opportunity for renewable alternatives ^[5] .
- Growing construction sector and increasing demand for electricity ^[2] .
- Potential for economic growth through improved energy access.

Social

- Low electricity access rates, especially in rural areas (17% rural vs 80% urban) ^[4].
- Increasing awareness and demand for sustainable energy solutions.
- Need for job creation and skills development in the renewable energy sector.

Technological

- Availability of advanced solar and battery technologies.
- Growing adoption of cyclone-resistant renewable energy infrastructure.
- Potential for innovative off-grid solutions for remote areas.

SWOT Analysis

Strengths

- Exclusive distribution rights for advanced solar equipment.
- Expertise of senior electrician (owner) and International Strategic Planner.
- Strong connections with government officials and project owners.

Weaknesses

- New entrant in the Vanuatu market.
- Initial capital constraints.
- Dependence on imported equipment.

Opportunities

- Alignment with Vanuatu's renewable energy goals ^[1] .
- Potential to secure large government and aid-funded projects ^[2] .
- Expanding market for off-grid solutions in rural areas.

Threats

- Potential competition from established local and international firms.
- Regulatory changes affecting renewable energy sector.
- Natural disasters (cyclones) impacting operations and installations.

9. Product/Service Unique Selling Proposition (USP)



1. Exclusive distribution rights for earthquake and cyclone-resistant portable solar equipment, addressing Vanuatu's vulnerability to extreme weather events ^[3] .
2. Access to high-level government and international aid agency connections through the ISP.
3. Comprehensive service offering from equipment supply to installation and strategic consulting.
4. Alignment with Vanuatu's **National Energy Road Map** goals ^[4] .

10. Operational Plan



Facilities:

- Office and warehouse space on purchased land
- Workshop for equipment maintenance and customization

Equipment:

- Vehicles for transportation and on-site work
- Specialized tools for electrical and solar installations
- Inventory of solar panels, batteries, and electrical components

Staff:

CEO

- Senior Electrician (the applicant)

Operations manager

- Benny Van Wyk is a specifically trained and gifted expert in the field imported from South Africa for this role. 5% Shareholding. See CV attached hereto.

Installation and maintenance crew

- 2-3 local electricians (to be hired and trained)

Administrative staff

- Office administrative staff
- Sales and service representatives.

Key Personnel:

- International Strategic Planner (ISP): Izak Labuschagne, See CV in Addendum

Pricing Method

DPD will adopt a value-based pricing strategy, considering the following factors:

1. The high cost of current electricity in Vanuatu ^[5].
2. The long-term cost savings of renewable energy compared to diesel generation ^[3].
3. The value added by our strategic planning and international connection services.

Prices will be set to be competitive while reflecting the premium quality and comprehensive nature of our services.

Product/Service Growth Potential

The growth potential is significant, based on several factors:

1. Vanuatu's goal to achieve 100% renewable energy by 2030 ^[4].
2. The projected doubling of energy consumption in the next 15 years ^[1].
3. The low current electricity access rate, especially in rural areas (17% in 2013) ^[3].

4. Increasing interest from independent power producers in solar PV electricity generation ^[3].

11. Risk Management Strategy



1. Diversification of services across equipment distribution, installation, and consulting to mitigate market fluctuations.
2. Development of cyclone-resistant technologies to address the risk of natural disasters ^[3].
3. Establishment of strong relationships with government and international agencies to stay informed about policy changes and funding opportunities.
4. Regular review and alignment of business strategies with the National Energy Road Map to ensure continued relevance ^[4].
5. Investment in training local staff to build capacity and reduce dependence on expatriate expertise.
6. Implementation of rigorous quality control measures to maintain high standards and reputation.
7. Demand for shut-down contracting in Australia serves as an effective back-stop in case of any cash-flow requirements.

By incorporating these elements, DPD is well-positioned to capitalize on the growing renewable energy market in Vanuatu while addressing key challenges and aligning with national development goals.

Citations:³

³ [1] <https://gggi.org/report/vanuatu-energy-demand-projections-business-as-usual-scenario/>
[2] <https://www.blackridgeresearch.com/new-projects-near-me/renewable-energy-database/announced-upcoming/vanuatu>
[3] https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2015/IRENA_RRA_Vanuatu_2015.pdf
[4] <https://doe.gov.vu/images/docs/reports/National%20Energy%20Road%20Map.pdf>
[5] <https://www.adb.org/sites/default/files/linked-documents/49450-008-ssa.pdf>
[6] <https://prdrse4all.spc.int/sites/default/files/vanuatus-neesap-2022-2030.pdf>



12. Financial Plan

DPD aims to achieve sustainable growth and profitability by capitalizing on Vanuatu's push towards renewable energy and leveraging our unique market position.

Initial Investment:

- Land Purchase:	AUD 170,000
- Building and Business Development:	AUD 120,000
Total Initial Investment:	AUD 290,000

Please note that the following projections are based on **anticipated JV involvement and expressions of interest from two highly engaged sources.**

In the one instance, the suppliers of the distribution rights have already indicated a desire to deploy a **donated power hub on mission grounds** that will be accommodating the CEO and ISPS.

Apart from serving as an ideal location to stage such cutting edge technology, this business in fact **brings a donor to the region.**

These suppliers will without a doubt take a stake in the company for the provision of the founding stock levels.

More so because they will be intimately involved in training the installation, management and maintenance staff as well as in the initial deployments.

Apart from that instance and as they are **already involved in PPP projects** in South Africa where the state covers 50% of the installation costs in community development projects in the energy sector, they are perfectly positioned (and willing) to participate in similar PP projects in Vanuatu.

In addition, a partner in another business involved in international distribution with the CEO and ISPS has expressed an interest to invest in this new venture.

[7] <https://sustainabledevelopment.un.org/content/documents/1365vanuatuEnergy%20Strategy.pdf>

[8] https://iucn.org/sites/default/files/2024-09/04-vanuatu-policy-recommendations_wcel.pdf

As a result, this business brings two more Foreign Direct Investors as well as a donor and PPP partner to Vanuatu from the very outset.

Hence: -

Projected Costs and Expenses (Annual)

1. Equipment and Inventory:	\$500,000
2. Salaries and Wages:	\$250,000
3. Rent and Utilities:	\$30,000
4. Marketing and Business Development:	\$50,000
5. Administrative Expenses:	\$40,000
Total Annual Expenses:	\$870,000

Projected Revenues (Annual)

- Year 1: \$1,000,000
- Year 3: \$2,500,000
- Year 5: \$5,000,000

Profit Margins

- Year 1: 13% (Break-even plus small profit)
- Year 3: 20%
- Year 5: 25%
-

These projections are based on:

1. Securing distribution contracts for solar equipment.
2. Winning government and aid-funded project contracts ^[2].
3. Expanding into rural electrification projects ^[4].
4. Leveraging the ISP's connections to secure high-value contracts.
5. Anticipated JV involvement and expressions of interest as aforementioned.

Projected Revenue Streams:

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- 1. Equipment Distribution: 40%
- 2. Solar and Grid Installations: 35%
- 3. Electrical Contracting Services: 25%

Financial Projections:

Year	Revenue	Expenses	Profit	Profit Margin
1	\$1,000,000	\$870,000	\$130,000	13%
3	\$2,500,000	\$2,000,000	\$500,000	20%
5	\$5,000,000	\$3,750,000	\$1,250,000	25%

Additional Revenue Streams:

- 1. Consulting fees for strategic energy planning.
- 2. Success fees for securing international aid and investment.
- 3. Management fees for large-scale energy projects.
- 4. Shut-down contracting to Australia.
- 5. Maintenance contracts on certain installations.

Projected Financial Impact of ISP:

- Year 1: 15% increase in revenue due to secured government contracts
- Year 3: 30% increase in revenue from international aid projects
- Year 5: 50% increase in revenue from large-scale energy infrastructure projects

Key Financial Strategies:

- 1. Leverage the ISP's connections to secure high-value government and aid-funded projects.
- 2. Focus on rural electrification projects, aligning with Vanuatu's goal to increase rural access from 17% to 100% [4].
- 3. Capitalize on the growing demand for renewable energy solutions, driven by NERM targets [1].

4. Diversify revenue streams across equipment distribution, installations, and contracting services.

This financial plan demonstrates the potential for significant growth and profitability, aligning with Vanuatu's energy sector development goals and the increasing demand for renewable energy solutions. The projections reflect the unique value proposition of DPD, including its strategic partnerships and exclusive distribution rights.

Key Questions

1. What are the key political factors influencing the energy sector in Vanuatu
2. How does the regulatory environment in Vanuatu impact energy projects
3. What are the main social factors affecting energy access in Vanuatu
4. How can economic trends in Vanuatu be leveraged for energy investments
5. What technological advancements are critical for Vanuatu's energy future

Citations:⁴

12. Economic Benefits to Vanuatu



1. Creation of 5-7 local jobs within the first two years
2. Transfer of skills and knowledge in advanced electrical and solar technologies
3. Contribution to Vanuatu's renewable energy goals
4. Improved energy infrastructure, particularly in rural areas
5. Increased foreign direct investment

⁴ [1] <https://doe.gov.vu/images/docs/reports/National%20Energy%20Road%20Map.pdf>
[2] <https://solarquarter.com/2024/08/08/adb-and-vanuatu-government-commission-santo-transmission-line-to-enhance-renewable-energy-access/>
[3] <https://documents1.worldbank.org/curated/pt/886011567144090319/Vanuatu-Energy-Sector-Development-Project.docx>
[4] https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2015/IRENA_RRA_Vanuatu_2015.pdf
[5] <https://sustainabledevelopment.un.org/content/documents/1365vanuatuEnergy%20Strategy.pdf>
[6] <https://prdrse4all.spc.int/sites/default/files/vanuatus-neesap-2022-2030.pdf>
[7] <https://www.blackridgeresearch.com/new-projects-near-me/renewable-energy-database/announced-upcoming/vanuatu>
[8] https://iucn.org/sites/default/files/2024-09/04-vanuatu-policy-recommendations_wcel.pdf

6. Potential for export of services to other Pacific Island nations
7. Facilitation of significant foreign direct investment in Vanuatu's energy sector
8. Acceleration of Vanuatu's progress towards its renewable energy goals
9. Enhancement of Vanuatu's capacity to secure and manage international aid for energy projects
10. Potential for Vanuatu to become a regional leader in sustainable energy solutions
11. Creation of high-skilled job opportunities in the renewable energy sector

Strategic Partnerships and International Cooperation

- A. Collaboration with UN agencies and the World Bank for project funding and MIGA guarantees**
- B. Partnerships with international renewable energy companies for technology transfer**
- C. Joint ventures with local businesses to enhance domestic capabilities**
- D. Engagement with regional bodies to promote Vanuatu's energy initiatives**
- E. Engagement with extremely talented individuals in the Block Chain and Crypto industry with the view to incorporate these technologies into business operations.**

- a. In this respect a full R&D paper is under advanced development between individuals across several continents.
- b. Moreover, we are aware of the Government initiatives in this field and intend to collaborate.

12. Future initiatives and goals



1. Marine STCW rated installations and servicing.
2. Land speculation with mobile expandable residential technologies.
3. Relocation of M&I International Distribution to Vanuatu.
 - a. This initiative involves the deployment of budget reef friendly multi-terrain galvanised fishing anchors.

Residential Building Projects

Based on Internet and AI assisted search results, there is no specific information about the exact number of current residential building projects in Vanuatu. However, one can provide some relevant information about construction and development activities in Vanuatu:

1. There are several eco-themed residential projects being developed by leading property developers in Vanuatu, including:
 1. Green Oasis by Vingroup
 2. Ecotopia by Phuc Khang
 3. EcoHarmony by Gamuda Land
 4. Green Valley by Sun Group

These projects focus on sustainable design principles and incorporate features like eco-friendly materials, solar energy utilization, green roofs, and water conservation systems. ^[1]

2. The **Vanuatu Infrastructure Strategic Investment Plan (VISIP) 2015-2024** outlines several infrastructure projects, including some that may involve residential components:

1. Vanuatu Urban Development Project (Phase 2 - Luganville, Port Vila)
2. Various road rehabilitation and sealing projects that could support residential development ^[2]

3. Traditional Melanesian architecture is still common for residential buildings in Vanuatu, with features like thatched roof bungalows and stilted houses. However, modern influences are also impacting home styles on islands like Aore [4].

While these sources indicate ongoing residential development activity in Vanuatu, they do not provide a specific count of current residential building projects. The focus appears to be more on sustainable and eco-friendly development, as well as infrastructure improvements that support residential growth.

Citations:⁵

Active infrastructure and building projects currently underway in Vanuatu

Based on the search results provided, there are **several active infrastructure and building projects currently underway in Vanuatu:**

1. The Vanuatu Energy Access Project,

which includes:

1. Construction of the Brenwe Hydropower Plant in Malekula, which was commissioned in Q4 2023[3].
2. Extension of distribution grids in Malekula and Espiritu Santo islands[3].
3. The Espiritu Santo transmission and distribution lines (45km) are expected to be commissioned in August 2024[3].

2. The Vanuatu Infrastructure Reconstruction and Investment Program (VIRIP)

by the World Bank, which has:

1. Reconstructed or repaired 50 kilometers of roads
2. Rebuilt 40 schools to be more resilient to disasters[6]

⁵ [1] <https://constructive-voices.com/vanuatu-top-green-buildings/>

[2] <https://www.theprif.org/sites/theprif.org/files/documents/VISIP%202015-2024%20Report.pdf>

[3] <https://www.blackridgeresearch.com/new-projects-near-me/infrastructure-development-database/c/vanuatu>

[4] <https://www.vanuatuisland.org/building-styles-in-vanuatu>

[5] <https://www.adb.org/projects/49450-008/main>

[6] <https://i-build.com.au/kit-homes-vanuatu/>

[7] <https://vanuatubuilders.vu/current-building-projects/>

[8] <https://www.tendersinfo.com/vanuatu-projects.php>

3. Several projects listed in the Vanuatu Infrastructure Strategic Investment Plan (VISIP) 2015-2024,

including:

1. Vanuatu Urban Development Project (Phase 2 - Luganville, Port Vila)
2. Santo South Coast Road Rehabilitation
3. Sealing of Tanna Roads from Whitegrass to Isangel
4. Low Voltage (LV) and Medium Voltage (MV) Extension (Vila, Santo, Malekula)
5. Efate Grid Connected Solar Panels (1 MW) Project
6. Brenwe Hydro Power Project (< 1.2MW), Malekula
7. Sarakata Hydro Power Extension Project (+600 KW), Santo
8. Rural Water Supply projects in various provinces[2]

3. The Vanuatu Rural Electrification Project and the Solar Energy Development Project, aimed at expanding access to electricity in rural areas[1].

While the exact number of active building projects is not specified, these sources indicate that there are multiple ongoing infrastructure and construction projects across various sectors in Vanuatu, including energy, transportation, water supply, and education.

Citations:⁶

-
- ⁶ [1] <https://www.blackridgeresearch.com/new-projects-near-me/infrastructure-development-database/c/vanuatu>
[2] <https://www.theprif.org/sites/theprif.org/files/documents/VISIP%202015-2024%20Report.pdf>
[3] <https://www.adb.org/projects/49450-008/main>
[4] <https://www.tendersinfo.com/vanuatu-projects.php>
[5] <https://www.adb.org/where-we-work/vanuatu/projects-results>
[6] <https://www.worldbank.org/en/results/2024/06/07/improving-lives-and-building-resilience-in-vanuatu>
[7] <https://www.dfat.gov.au/geo/vanuatu/development-assistance/development-partnership-with-vanuatu>
[8] <https://www.landequity.com.au/projects/vars/>



Summary

In our respectful view, this company's ability to bridge local needs with international resources and expertise makes it an exceptionally strong candidate for a Foreign Direct Investor Visa, promising significant long-term benefits for Vanuatu's economy and energy infrastructure.

As such, this business plan aligns with Vanuatu's development goals and demonstrates the potential for significant economic contribution, making it a strong candidate for a Foreign Direct Investor Visa.

Citations:⁷

⁷ [1] <https://constructededge.com/2022/07/15/how-do-you-get-internet-for-construction-sites/>
[2] <https://sngroup.com/investing-in-broadband-infrastructure/>
[3] <https://www.infrastructure.gov.au/media-technology-communications/internet/national-broadband-network/connecting-your-business-nbn>
[4] <https://www.adb.org/projects/49450-008/main>
[5] <https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2022/07/how-broadband-infrastructure-gets-built>
[6] <https://startyourownisp.com>
[7] <https://solarquarter.com/2024/08/08/adb-and-vanuatu-government-commission-santo-transmission-line-to-enhance-renewable-energy-access/>
[8] <https://www.blackridgeresearch.com/new-projects-near-me/infrastructure-development-database/c/vanuatu>



Appendices



1. Applicant's professional certifications and experience
2. Letters of intent from potential partners or clients
3. Detailed equipment specifications
4. Market research data on Vanuatu's energy sector
5. ISP Izak Labuschagne's professional profile and achievements
6. Letters of support from government officials and project owners
7. Outline of potential international aid and investment opportunities

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CV M Vogel

Personal Information:

Name: Marius
Surname: Vogel
ID Number: 7509105014081
Passport Number: 459626721
Date of Birth: 1975-09-10
Address: 38 Hamilton Dr
Clinton
Queensland
4680
Cell phone: +61 427066540
Email: mariusvogel@hotmail.com
Marital Status: Married
Dependants: Wife and three children
Interests: Reading theological literature, camping, fishing, playing and watching rugby or cricket and doing social work.
Certificates: On request

Work Experience:

2014-Present

Rio Tinto Yarwun
Hanson Rd
Gladstone City
QLD
Australia
4680

2011-2013

Konecranes Pty Ltd
4/15 Roseanna st,
Gladstone
4680
Duties:

Maintenance, inspections, repairs and installations of ;

- Gantry cranes
- Jib cranes
- Mono rail cranes
 - Including vsd drives,
 - remote control systems,
 - live rail supplies,
 - forward/reverse motors and controls,
 - limit switches,
 - anti collision sensors,
 - and much more.

2009-2011

Anglo Platinum Limited
Rustenburg Platinum Mines Limited –
Mogalakwena Section
Private Bag X2463,
Mokopane,
South Africa
0600

Duties:

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Maintenance and repairs of plant equipment as follows;

- HT motors (11kv and up to 17mw)
- VCBs (Vacuum Circuit Breakers)
- PFCs (Power Factor Controllers; Capacitor banks)
- Reading and fault finding on Transit Recorder (Monitoring fault currents, power dips, over voltage, under voltage and loss of phase on 33kv/11kv supply grids)
- VSDs (Variable Speed Drives)
- HT and LT transformers (change silica gel, checking for leaks, gasses and oil levels. Also testing and setting of protection relays (*Buchholz* relay) and tap changers)
- HT switching (racking in and out of VSB's for maintenance or equipment lock out)
- GMD (gearless motor drive) Mills with wrap-around 17mw ABB motors and their VSD drives
- Simmecom and Micom protection systems
- RTD's (Residual Thermal Device connected to the Micom to regulate the winding and bearing temperatures of the HT motors)
- Overhead cranes up to 125tonnes with remote pendant controls.
- 11kv/525v mini-substations
- Cooling towers
- Compressor systems
- Conveyor drives with emergency pull switches, emergency stops and break



glass systems connected to the Circuit breaker shunt trip coil.

- Sampler motors and control panels
- Crushers with their respected hydroset motor and lubrication pump motors and controls
- Forward and Reverse, Star-Delta, Liquid Starter, Direct Online, Single Phase and Two-Speed motor wiring diagrams, panel wiring, installation and commissioning
- Pump wiring panels (direct on line and VSD's)
- Vibrator motors on screens
- Lightning (balancing of loads, fault finding, installation, timers and day/night relays)
- Cable joining and termination
- Boiler controls and setting of thermostats
- Earth-leakage protection relays installation and testing
- Megger testing of up to 17mw motors and cables (testing for continuity and insulation breakdown)
- Admin and legals:
 - compiling of intensive risk assessment before doing any work (HIRA: Hazard Identification Risk Assessment)
 - Also doing PTO's (Plan Task Observations) on my Apprentice (Raymond Martin, mobile nr:)
 - Signing in and out of Substations, explaining the reasons and logging the time; on entrance and departure
 - Doing lockouts on LT and HT equipment always signing on and off.



■

2006-2009

Klipspringer Diamond Mine

S.A.N. Contracting Services
26-28 Berg Street
Rustenburg
North West Province
South Africa
0300

Duties:

Engineering supervision electrical
maintenance of;

- Locos
- pumping maintenance and distribution logistics
- winches
- HT maintenance (OCBs, transformers, overhead lines etc.)
- lighting
- cabling
- plant maintenance
- sequence starts
- crushers
- transvac systems
- flosort diamond x-ray machines
- magnets etc.
- basic fitting
- basic plumbing



2003-2005

Samaria Mission

Mission Work (Social)
Mozambique & South Africa

Duties:

- sinking of bore holes and installing pumps
- building of churches and schools
- set up base camps
- evangelism
- church planting
- discipleship

2004-2005

Christ Seminary

Theological Studies

2002

H.S.B.C. Bank
Jersey – UK

Duties:

- cabling
- tray work
- house wiring
- DB wiring

2001

Marks & Spencer Monument
London – UK

Duties:

- installations
- lighting
- spurs
- conducting
- testing



- sockets

2001

Detention Centre
Bedford, Bedfordshire – UK

Duties:

- fault finding
- testing
- new installations
- spurs
- sockets
- installation of conduit piping
- wiring
- DBs etc

2000

Debenhams
Eastbourne/ Sussex London - UK

Duties:

- cabling
- tray/ trunking
- cat 5 & data cabling
- testing
- DBs

1999

Millennium Dome
Greenwich London – UK

Duties:

- heavy duty cabling
- DBs
- domestic wiring
- data cabling

1996-1998

Silicon Smelters (Samancor)
Beyersnek Rd

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Polokwane
0700
Limpopo
South Africa

South Deep Levels Mining contract

D & H Electrical South Africa
P.O. Box 18139
Sunward Park
1470
Gauteng
South Africa

Duties:

Plant, mining and domestic maintenance of;

- motors & starters
- sequence starters
- control systems
- crushers
- overhead cranes
- cable joints
- sub stations
- boilers
- domestic maintenance
- furnaces
- electric stoke-cars
- electric locos
- telephone installations and faultfinding
- transformers and much more.

1996

Kloof Gold Mine Co Ltd

Goldfields Ltd
P.O. Box 190
Westonaria
1780

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Qualified Electrician (employed as Underground Electrician) duties:

Maintaining, Fault-finding, installation and repairs include:

- Mini Substations
- Cable Jointing
- HT Switching
- HT Phasing
- Winches and their controls
- Lightning
- Bells and Sirens
- AC/DC Locos

1993-1996

Kloof Gold Mine Co Ltd

Goldfields Ltd
P.O. Box 190
Westonaria
1780

Apprenticeship duties and modules:

(see attached file: “**Apprenticeship original modules and Guidelines**”)

- **RCD:** Roll the Cable Drum
- **RCO:** Roll Cable off Drum
- **LCE:** Lay Cable in Figure-of-Eight
- **JP:** Join P.V.C – S.W.A. Cable and P.I.L.C. Cable Using Pressure Joint Kit
- **JP-1:** Join P.I.L.C. Cable Using Pressure Joint Kit
- **HSJ:** Heat Shrink Joint on P.V.S. S.W.A Cable
- **HSJ-1:** Heat Shrink Joint on P.I.L.C. S.W.A. Cable
- **FCC:** Fit Lugs to Cable Core



- **CCE:** Connect Up Cable Ends
- **SAG:** Sweat a Gland to a P.I.L.C. Cable
- **FPG:** Fit a Mechanical Gland to a P.V.C. Cable
- **MG:** Fit a Mechanical Gland to a P. V.C. / P. I. L. C. Cable
- **CPT:** Secure Cables to Catenary Wires, Poles and Trays
- **PC:** Phase out Cables
- **MTC:** Megger Test a Cable
- **ITC:** Impulse Test a Cable
- **ITC-1:** Impulse Test a Cable (High Voltage Tester)
- **HTL:** Maintain HT and LT Switch Gear
- **ODC:** Overhaul A. D. C. Motor
- **OSR:** Overhaul a Slip Ring Motor
- **SRI:** Test a Slip Ring Induction Motor A. C.
- **US:** Test a Universal Series A. C. Motor
- **VS:** Test a Variable Speed A. C. Motor
- **SPI:** Test a Single Phase Induction Motor (Squirrel Cage A. C. Motor)
- **TPI:** Test a Three Phase Induction Motor A. C.
- **SD:** Make Star and Delta Connections
- **CC:** Check a Commutator for Wear
- **UC:** Undercut a Commutator
- **TB:** Remove, Refit, Bed and Tension Carbon Brushes
- **RRB:** Remove and Replace Bearings
- **DDM:** Disassemble a DC Drive Motor
- **DRT:** Do an Insulation Resistance and Continuity Resistance Test
- **ST-2:** Set Timers
- **TPC-1:** Test Photo Electric Cells
- **EP-1:** Erect a Pole or Mast
- **IML-1:** Install and Maintain Lights



- **DCC-1:** Determine Capacity and Type of Circuit Breakers
- **CB:** Determine the Condition of DC Circuit Breakers
- **MCB:** Mount Circuit Breakers
- **IE:** Install Earth Leakage Protection Units
- **TEL:** Test Earth Leakage Protection
- **CEE:** Connect and Earth Equipment
- **DOG:** Disassemble and Overhaul Grids
- **BAL:** Balance a Load
- **MSS:** Service Main Substations
- **DMC:** Carry out a Daily Maintenance Check on a Transformer
- **WMC:** Carry out Weekly Maintenance Check on a Transformer
- **SGU:** Remove, Maintain and replace Silica-Gel Units Correctly
- **CTO:** Change Transformer Oil
- **DAT:** Do a Tap Change on a Transformer
- **CAT:** Connect a Transformer
- **FFT:** Fault Find on Telephones
- **RT:** Repair Telephones
- **IT:** Install Telephones
- **JTC:** Join Telephone Cables
- **LS:** Maintain Lights and Sirens
- **REC:** Recognise General Hazards
- **FFF:** Fault Find and Repair Fans
- **FFG:** Fault Find and Repair Geysers
- **FFK:** Fault Find and Repair Kettles
- **FFP:** Fault Find and Repair a Polisher
- **FFO:** Fault Find and Repair Electric Irons
- **FFS:** Fault Find and Repair Stoves
- **FFU:** Fault Find and Repair Urns



- **MPE:** Maintain Portable Electrical Equipment
- **IBB:** Install Bus-Bars in a Distribution Box
- **TU:** Top Up Batteries
- **THT:** Take Hydrometer Tests on Batteries
- **DBC:** Determine the Condition of Battery Connections
- **RR:** Replace Battery Cells
- **DMM:** Do Maintenance and Minor Repairs on Battery Locos (Including Dead Man Switch)
- **WB:** Wedge Battery Boxes
- **MBC:** Maintain Brushes and Commutators
Remove, Refit Bed and Tension Brushes on Battery Locos
- **DOC:** Disassemble and Overhaul a Contactor of a Loco
- **REL:** Re-assemble and Test an Electric Loco
- **TC:** Disassemble and Overhaul a Thyristor Controller
- **MOC:** Maintain an Overhead Crane

References

Anglo-Platinum

Klipspringer

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Goldfields Ltd

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(Apprentice Co-ordinator)

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D & H Electrical Contractor & Labour Hire

Dirk Loots

Tel: +27 11 918 1963/3912

Cell: +27 82 568 5744/+27 83 627 4519

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CV Bennie Van Wyk

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CV of Izak Labuschagne

This CV can be downloaded at <https://www.linkedin.com/in/izak-labuschagne-12550818/>

Details of potential benefits to DPD and Vanuatu can be gauged at <https://izaklab.weebly.com/>

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DPD R&D

Some questions related to the research that could still be pursued

1. What are the most significant infrastructure projects currently underway in Vanuatu
2. How is the Vanuatu Rural Electrification Project progressing
3. What are the main challenges faced in Vanuatu's infrastructure development
4. Are there any new renewable energy projects planned for Vanuatu
5. How is the Vanuatu Inter-Island Shipping Support Project improving maritime transport
6. What are the key features of the eco-themed residential projects in Vanuatu
7. Which developers are leading the green building initiatives in Vanuatu
8. How do green buildings in Vanuatu contribute to sustainable development
9. What are the benefits of eco-friendly materials used in Vanuatu's residential projects
10. How does the government support green building projects in Vanuatu
11. What is the expected impact of the South Tarakae Solar Project on Vanuatu's energy landscape
12. How will the Mele Cascades Hydro Project benefit rural communities in Vanuatu
13. What role does international investment play in Vanuatu's renewable energy projects
14. How does the Vanuatu Green Transformation Project aim to achieve 100% electrification by 2030
15. What are the main challenges in implementing renewable energy projects in Vanuatu
16. What are the most popular solar batteries used by installers in Vanuatu
17. How do Lifepo4 batteries compare to other types in terms of durability and efficiency
18. What are the key benefits of using solar generation stations in Vanuatu
19. How can securing distribution rights impact the private sector in Vanuatu
20. What are the main challenges in securing agency rights for solar equipment in Vanuatu
21. What are the current trends in green building in Vanuatu
22. How does the National Building Code of Vanuatu impact electrical installations

Private and Confidential

23. What are the main challenges for new entrants in the electrical installation sector in Vanuatu
24. How does the demand for sustainable buildings affect the electrical installation market in Vanuatu
25. What SNTC training programs are available for electrical installers in Vanuat

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