



**GOVERNMENT OF THE REPUBLIC OF NAMIBIA
MINISTRY OF MINES AND ENERGY**

**NATIONAL POLICY FOR INDEPENDENT
POWER PRODUCERS (IPPs)**

2018

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- The Ministry of Finance, the Ministry of Environment and Tourism (MoET), the Ministry of Land Reform, the Ministry of Labour, Industrial Relations and Employment Creation, the Ministry of the Industrialization, Trade, and Small and Medium Enterprises, and the Ministry in charge of National Planning Commission (NPC)
- NamPower, the REDs, the Municipalities, and the IPP representatives
- Namibia Energy Institute
- Namibia Chamber of Commerce and Industry
- Representatives of the financial industry
- A number of representatives from the consumers and energy consulting industry

The contributions provided by the stakeholders were invaluable in developing the National IPP Policy.

Finally, acknowledgement is given to CORE International, Inc., Bethesda, Maryland, USA for their technical assistance in the formulation of the National IPP Policy and extensive stakeholder consultations.

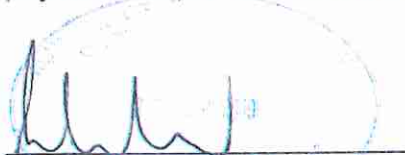
Foreword

Among the numerous developmental challenges facing Namibia is the need for huge investments in power generation capacity, especially in view of strong economic and demographic growth in the SADC region over the last decade. The financing requirements of the power sector are far beyond the scope of most countries, hence leaving large funding gap, which can only be filled by the private sector.

Projections for electricity demand in Namibia is expected to rise and by 2035 will be more than double its current electricity consumption. Independent Power Producers (IPPs) constitute the primary vehicle for privately developed, constructed, operated, and owned generation plants that sell electricity to public utilities, end-consumers; and as non-utility generators have long-term power purchase agreements (PPAs) with off-takers.

Namibia as a stable country with macro prudential policies and a legal system which allows contracts to be enforced and respected are critical factors attracting IPP investments. Namibia's legal framework specifying market structures, roles and terms for investments based on the Electricity Supply Market Model is in place. A transparent and predictable licensing and tariff framework including cost-reflective tariffs all forms part of our regulatory environment.

The National IPP Policy comes at a crucial time to attract private sector investment in generation power projects considering the energy challenges faced by Namibia and our sister SADC countries. The Policy will ensure diversification of supply options, assist in the introduction and transfer of new skills and capital investments into the industry, and enable the benchmarking of performance and pricing. The National IPP Policy is part of the Government's drive in creating a conducive environment for private sector investment and outlines the key provisions of the Government's commitment to encourage private investment in Namibia's power sector. It outlines the power market model, pricing regime, procurement approach, and the requirements for the IPPs to develop power generation projects and seek licenses for implementing the projects.



Tom K. Alweendo, MP
Minister of Mines and Energy

Acronyms and Definition of Terms

Acronyms

ECB	Electricity Control Board
ESI	Electricity Supply Industry
GHG	Greenhouse Gas
HPP	Harambee Prosperity Plan
IPP	Independent Power Producer
KVA	Kilo Volt Amps
kWh	Kilo Watt Hour
M&E	Monitoring and Evaluation
MME	Ministry of Mines and Energy
MET	Ministry of Environment and Tourism
MSBM	Modified Single Buyer Model
MSMB	Multiple Seller – Multiple Buyer
MW	Mega Watt
NDP	National Development Plan
NIC	Namibia Investment Centre
NPC	National Planning Commission
PPA	Power Purchase Agreement
QoSS	Quality of Supply and Service
RE	Renewable Energy
ROR	Rate of Return
SAPP	Southern Africa Power Pool
SB	Single Buyer
SME	Small and Medium Enterprise
TCA	Transmission Connection Agreement
UNFCCC	United Nations Framework Convention on Climate Change

Definition of Terms

- **Capital Investment Cost (Capex):** Total investment required for the construction of a facility
- **Conventional Electricity:** Typically defined as electricity generated from fossil fuels such as coal, natural gas, oil, and diesel, and nuclear
- **Electricity Control Board:** The national electricity regulator of Namibia or its successor
- **Electricity Supply Industry (ESI):** The industry involved in the generation, transmission, supply and distribution of electricity to consumers
- **Grid Connection Charges:** Charges paid by the IPP to the transmission company for using the transmission network for evacuating power to supply to the off-taker
- **Grid Stability:** A measure of the power evacuation capacity of the transmission network and its capacity to withstand sudden power surges
- **Harambee Prosperity Plan (HPP):** Government of the Republic of Namibia's Action Plan towards Prosperity for All (2016/2017 – 2019/2020)

- **IPP License:** A license issued by the regulator to an IPP to generate and supply power to the off-taker
- **Independent Power Producer (IPP):** A private power developer developing and implementing a power generation project fully financed through the mobilization of debt and equity from private investors and commercial financial institutions on the basis of a Power Purchase Agreement with an off-taker of the generated power
- **Large IPP Projects:** IPP projects with a generation capacity of more than 100 MW
- **Medium-sized IPP Projects:** IPP projects with a total generation capacity between 5 MW and 100 MW
- **National Development Plan (NDP):** National Development Plans developed every five years in Namibia to guide the economic and social development strategy of the country
- **National Integrated Resource Plan (NIRP):** A plan developed by the Government of Namibia to guide the development of the power sector through a least-cost plan
- **Off-Taker:** A buyer of electricity from an IPP
- **Operation and Maintenance Cost (Opex):** Annual cost of operating and maintaining a facility
- **Power Grid:** Namibia's national transmission grid either operated by the vertically integrated power utility or by an unbundled national transmission company
- **Power Purchase Agreement (PPA):** An agreement between the IPP and an off-taker for the sale of power by the IPP to the off-taker typically over a 15-25-year period
- **Regional Electricity Distributors (REDs):** Regional electricity distribution companies organized under the Namibian laws as autonomous companies to distribute power to their consumers in a specified region of the country
- **Renewable Energy Feed-in-Tariff (REFIT):** Tariff designed by the regulator for various renewable energy resources (solar, wind, biomass, etc.) for all IPPs below a certain threshold capacity generation facilities, currently limited to 5 MW in total capacity
- **Renewable Energy (RE):** Energy from a renewable energy resource such as solar, wind, hydro, geothermal, and biomass
- **Small IPP Projects:** IPP projects with a total generation capacity of 5 MW or less
- **Transmission Connection Agreement (TCA):** A contract between the IPP and the national power transmission company for the connection of electrical power generated by the IPP to the national grid in order to evacuate power to the off-taker
- **Vision 2030:** A document prepared by the Government of the Republic of Namibia to set the Government's vision and goals for the development and transformation of the Namibian economy into an industrialised nation

Executive Summary

Overall Development Goals of Namibia

The economic and social development goals of Namibia are embodied in (i) Vision 2030 and (ii) the National Development Plan 5 (NDP 5) 2017/2018 – 2021/2022 as well as NDPs 1, 2, 3, and 4. In addition, the Government has developed the Harambee Prosperity Plan (HPP) 2016/2017 – 2019/2020, which complements the Vision 2030 and NDP 5. All of the three plans set the goals, targets, and strategy for Namibia to move on a path to economic prosperity through a concerted strategy for the development of Namibia's economic growth. These Plans also include specific growth targets milestones and strategies for the sustainable deployment of Namibia's resources to achieve the stated economic and social development goals.

The Government recognizes the importance of developing the country's energy sector in order to fuel the targeted economic growth and the transformation of Namibia to an industrialized nation. Availability of reliable electricity service is central to the development of all sectors of the economy and to achieve the country's economic and social development goals. Namibia continues to face electricity shortages. The shortfall between peak demand and peak supply in Namibia continues to be supplemented by imports from the neighbouring countries in the Southern Africa Power Pool (SAPP) system. This represents an untenable dependence on imports that must be addressed in the near term in order to ensure Namibia's energy supply security.

The National Integrated Resource Plan of Namibia

The National Integrated Resource Plan (NIRP) developed by the Government in 2016 has projected a significant growth in the country's electricity demand and estimates that an investment in the range of N\$90-97 billion (2016) will be needed over the next 20 years. Given other sectoral priorities in the country, the Namibian Government cannot meet such a significant investment requirement in a single sector of the economy. Accordingly, private sector investment sources must be deployed through the acceleration of IPPs for the development of the Power Sector in the country.

Rationale for the National IPP Policy

Based on recent developments in the IPP regime and the experience gained thus far, the Government of Namibia has recognized the need for promulgating a clear, fair, and transparent National IPP Policy in order to streamline the IPP regime in the country and open the Namibian power market to domestic and international investors. This National IPP Policy outlines the key provisions of the Government's commitment to encourage private investment in Namibia's power sector and outlines the power market model, pricing regime, procurement approach, and the requirements for the IPPs to develop power generation projects and seek licenses for implementing the projects.

IPP Investment Market in Namibia

The National IPP Policy lays out the provisions of classifying the IPP market into three categories and establishes the approach to be followed to promote private sector

investments in power generation through IPP projects consistent with the Least Cost Investment Plan detailed in the NIRP. The IPP market is categorized as follows:

- Small-Scale (< 5 MW in capacity) IPPs covered under the REFIT Scheme
- Medium-Sized (5 MW – 100 MW generation capacity) IPPs
- Large (>100 MW generation capacity) IPPs
- Off-grid Electrification

The National IPP Policy also establishes the approach for the procurement of IPP projects. Small-scale renewable energy IPP projects may be procured through unsolicited and/or solicited means in terms of relevant legislation. Investment in small-scale IPP projects will be governed by standardized PPAs and Transmission Connection Agreements (TCAs) signed by the IPP and the off-taker subject to the regulatory oversight. Medium-sized IPP projects for both renewable and conventional energy shall be procured through competitive tendering in line with the relevant legislation. Large IPP projects, consistent with the NIRP, shall be implemented through a competitive procurement mechanism in line with the relevant legislation.

The Government recognises through the National IPP Policy (i) coherent planning and initiation of a transparent procurement mechanism guided by the NIRP and (ii) fair allocation of new build opportunities between off-takers and IPPs as per the market model.

Current and Modified Market Model

Current Single Buyer Model

In November 2000, the Cabinet of the Government of the Republic of Namibia approved a model for restructuring of the Namibian Electricity Supply Industry (ESI). A key feature of the approved model was the establishment of a Single Buyer (SB) function, embedded within NamPower. This implementation of a SB was seen as the most appropriate mechanism to manage and administer electricity-trading arrangements and to contract new investments in electricity generation.

Based on inputs from the stakeholders and international best practices for designing and implementing an IPP regime, the Government has recognized the need to re-examine the suitability of a SB market model for Namibia in order for IPPs to more aggressively participate in Namibia's power market.

Current developments in the ESI have seen small IPP projects selling electricity to large power users, such as, the REDs, Local Authorities and Mines. These developments are taking place within the existing regulatory framework with the aim to adopt a market structure in Namibia that enables IPPs to generate and sell electricity to designated off-takers other than the SB only.

Modified Single Buyer Model

In order to better meet future electricity needs and accommodate new technologies, the Government of the Republic of Namibia will adapt the market model to a broader array of transactions and electricity sources. These modifications shall be implemented in order to conform the development of the ESI in Namibia to transaction types already under way

between IPPs and the REDs. The new market model should recognise these bilateral trading agreements. Such transactions, already a fact in the Namibian power system, would be formally acknowledged in this modified model. Generators would not be in a situation to sell output only to NamPower Trading but also have the opportunity to sell directly to REDs and other large customers.

This National IPP Policy will ensure that there is sufficient competition at the supplier level (amongst IPPs) and a reasonable level of balanced competition at the off-taker level (among NamPower, the REDs, the Municipalities, and large industrial off-takers such as the mining companies). This level of competition will result in benefits to both the ESI and the consumers in terms of improved quality of service at a fair price.

A number of changes in the structure and functions of various sector institutions will be required in order to implement a new market model. These are further discussed in the National IPP Policy.

Electricity Pricing in Namibia

In 2002, the regulator commissioned a project to determine an appropriate electricity tariff methodology for Namibia. The study recommended that the industry should adopt a Rate of Return (ROR) also referred to as a “cost plus” methodology.

One of the important input parameters to the ROR methodology is the percent of return licensees are allowed to claim on their net (or depreciated) asset value. The purpose of the return percent is to compensate the regulated entity for the cost and risk of financing asset purchases.

The 2002 tariff study also recommended that the regulator should use the Weighted Average Cost of Capital (WACC) methodology to determine the licensee’s allowed percent ROR.

Namibia is a price taker in electricity markets. That means for all aspects of its electricity supply system – fuels, generation plants, networks, and imports – Namibia cannot control the prices paid for either the inputs to electricity supply or the electricity itself. For pricing of electricity, therefore, Namibia must then resort to the iron law of markets – charge prices for resale of electricity that cover all costs of supplying that electricity.

In addition to its primary role in covering costs, electricity pricing in Namibia should also provide signals/incentives to both suppliers and consumers. On the supply side, this shall involve decisions with respect to the selection of technology, location and size of new IPP plants, and optimization of the cost of supply and quality of service. On the consumers’ side, the role of prices is to make consumers aware of the true cost of the electricity that they use. Once costs can be fully recovered then the role of electricity prices is to ensure that consumers understand the importance of where and when electricity is consumed most efficiently. Only after full cost recovery pricing is in place can programs to increase the efficiency of electricity use be introduced with greater success.

In addition, this National IPP Policy shall ensure that the electricity prices take into account the growing role of renewable technologies in Namibia’s electricity sector. In a small market, such as that in Namibia, the potential role of some renewables, especially solar, may well be

great enough to affect system operations and stability in the future. Namibia must make sure that its incentives for intermittent sources of electricity do not lead to large swings in output relative to total consumption.

Wholesale Electricity Tariffs

Namibia's wholesale power market will face world prices and concomitant fluctuations for the greatest share of generation. Accordingly, pricing policy in Namibia shall be governed by the least-cost solutions in the NIRP that combine varying proportions of domestic gas (Kudu), imported LNG, imported coal, fuel oil, imports, and renewables, primarily wind and solar. The wholesale electricity prices shall accommodate these energy sources by implementing a weighted average cost of generation, varying by time of day or season, accounting for fluctuations in domestic demand, and hydro system operations in Namibia and in other SAPP countries.

Retail Electricity Tariffs

NamPower remains the primary electricity supplier through the Distribution licensees to the end customers. NamPower must meet certain financial covenants to maintain its ability to finance both on-going operations and future expansion. A large proportion of NamPower's costs are denominated in U.S. Dollar.

An obligation to cover costs with retail electricity sales provides little room for elaborate cross-subsidy schemes at the retail level. Accordingly, the current structure of retail prices is quite simple. Smaller customers, those without kilo volt amps (KVA) transformers, pay one uniform price per kilo Watt hour (kWh); the KVA customers pay a lower, uniform price, plus a demand charge. This translates to rather consistent pricing system for the final consumer.

One implication of the relatively inflexible tariff methodology currently used in Namibia is that consumers will generally feel the impacts of utility investment and power purchase decisions rather immediately. As a result, the potential for disastrous investment or import decisions is limited, as long as there is reasonable freedom to invest in new supply.

The regulator shall continue to ensure that all implementing regulations conform to this National IPP Policy.

Connection Charge Policy

During 2012, Namibia developed a National Connection Charge Policy that is applicable to all Network Licensees.

The overall objective of the National Connection Charge Policy is to establish a standardised approach to dealing with power network connections and associated connection charges for Load Customers and Generators. More specifically, the objectives include:

- a) Identifying parties to whom the Connection Charge Policy applies.
- b) Establishing a set of base connection charge principles.
- c) Describing the process of application for new connections or upgrades to existing supply arrangements.

- d) Identification of the different costs to be recovered via connection charges.
- e) Setting a standard methodology for determining Connection Charges.
- f) Providing a governance structure to deal with network connection matters.

National IPP Policy Implementation

In order to oversee the implementation of the National IPP Policy, the implementation plan for the NIRP should be adhered to. The regulator shall be responsible for developing and enforcing all implementing regulations with due consultations with the stakeholders.

Monitoring and Evaluation and Continued Policy Reform

Given that the Namibian ESI is evolving and the global IPP industry is rapidly undergoing transformation, the Government recognizes the need for (i) monitoring the economic and social impact of the IPP regime and (ii) a periodic review and revision of this National IPP Policy and the corresponding implementing regulations, as warranted by the changing power sector landscape in the country.

1 Introduction

1.1 Economic and Social Development Goals of Namibia

The economic and social development goals of Namibia are embodied in (i) Vision 2030 and (ii) the National Development Plan 5 (NDP 5) 2017/2018 – 2021/2022 as well as NDPs 1, 2, 3, and 4. In addition, the Government has developed the HPP 2016/2017 – 2019/2020, which complements the Vision 2030 and NDP 5.¹ All of the three plans set the goals, targets, and strategy for Namibia to move on a path to economic prosperity through a concerted strategy for the economic development of Namibia. The Plans also include specific growth targets milestones and strategies for the sustainable deployment of Namibia's resources to achieve that stated economic and social development goals.

While the details of the specific goals, objectives, and strategies can be found in the individual documents incorporated by reference, all plans are designed based on a set of overriding principles to guide the development of the Namibian economy.

1.1.1 Vision 2030

- The key provisions of the Vision 2030 are as follows:
 - ◆ A prosperous and industrialized Namibia, developed by her human resources, enjoying peace, harmony and political stability
 - ◆ Transformation of Namibia into an industrialized country of equal opportunities which is globally competitive realizing its maximum growth potential on a sustainable basis, with improved quality of life for all Namibians
 - ◆ Transformation of Namibia into a knowledge-based, highly competitive, industrialized and eco-friendly nation, with sustainable economic growth and a high quality of life

1.1.2 National Development Plan 5

- The high level goals of NDP 5 are as follows:
 - ◆ Achieve Inclusive, Sustainable and Equitable Economic Growth
 - ◆ Build Capable and Healthy Human Resources
 - ◆ Ensure Sustainable Environment and Enhance Resilience, and
 - ◆ Promote Good Governance through Effective Institutions

1.1.3 The Harambee Prosperity Plan (HPP – 2016/17 – 2019/2020)

- The key provisions of the HPP – 2016/17 – 2019/20) are as follows:
 - ◆ The HPP focuses on the Namibian Government's Action Plan toward prosperity for all.

¹ Vision 2030

National Development Plan 5, 2017,

Harambee Prosperity Plan (HPP), The Ministry in Charge of National Planning Commission, Government of Namibia

- The HPP is targeted to accelerate development in clearly defined priority areas for the development of the Namibian economy. This plan does not replace, but compliments, the long-term goal of the NDPs and The Vision 2030.
- The key driver for the HPP is to focus on the most effective way to address poverty through wealth creation. This is to be achieved by growing the economy in a sustainable inclusive manner and through the creation of decent employment opportunities. Effective governance and efficient service delivery in the country are at the centre of the HPP.
- The HPP clearly recognizes the relevance and importance of the availability of reliable and affordable energy to fuel economic growth in the country and transforming Namibia into an industrialized, economically thriving, and stable society.

The achievement of these development goals will require a concerted effort by all stakeholders to ensure that Namibia is put on a path to mobilize sufficient new generation capacity in the country to meet its growing demand, reduce its import vulnerability, enhance the ESI efficiency, and ensure the provision of reliable and affordable electricity to all segments of the country's economy including rural consumers.

1.2 The Role of Energy Sector in Namibia's Economic Development

The planning principles embodied in all of the plans developed by the Government recognize the importance of developing the country's energy sector in order to fuel the targeted economic growth and the transformation of Namibia to an industrialized nation. Availability of reliable electricity service is central to the development of all sectors of the economy and to achieve the country's economic and social development goals.

In 2015, Namibia's installed electricity capacity is 507.5 MW and the generation peak is 597 MW². In order to meet the economic development goals targeted by the Government of Namibia, the current National Integrated Resource Plan (NIRP) has forecasted that the generation peak would reach approximately 1,328.5 MW by 2035, the planning horizon for the NIRP. This represents approximately more than doubling of the peak demand for electricity in Namibia.

The shortfall between peak demand and peak supply in Namibia continues to be supplemented by imports from the neighbouring countries in the SAPP system. This represents an untenable dependence on imports that must be addressed in the near term in order to ensure Namibia's energy supply security.

In addition to addressing its current large energy shortfall as well as the country's overall economic goal to transform Namibia to an industrialized nation with a GDP growth rate in the range of 4-5% annually, Namibia needs to make sizable investments in the development of its indigenous power capacity. The NIRP analysed different scenarios to meet Namibia's projected demand for electricity in 2035. Of these, preferred scenarios were further analysed in substantial detail as they represented the lowest cost scenarios. The NIRP has forecasted that these scenarios would require an overall investment in the range of N\$90-97

² Based on the Reference Case in the current NIRP (June 2016)

billion. Given other sectoral priorities in the country, the Namibian Government cannot meet such a significant investment requirement in a single sector of the economy.

Accordingly, private sector investment sources must be deployed through the acceleration of IPPs for the development of the Power Sector in the country.

1.2.1 The Electricity Supply Industry in Namibia

Introduction of IPPs in the Namibian ESI is crucial in order for the IPPs to be able to participate in adding to the generation capacity of Namibia in a sustainable manner. The ESI in Namibia needs to keep pace with the changing energy requirements and the regional and global developments in the power sector including the global nature of the IPP industry. Exhibit 1 provides the current and evolving structure of the ESI. This Exhibit also shows transactional pathways for bilateral contracting, already a feature for smaller IPPs and a likely future attribute for both large IPPs and imports.

Namibia has a well-developed ESI and the reforms introduced by the Government of Namibia, including the establishment of the REDs, place the Namibian ESI at par with some of the best-run power systems internationally. NamPower, as the Government-owned utility, continues to be the dominant player in Namibia's ESI. Currently, NamPower acts as a single buyer with the responsibility for both indigenous power generation as well as power trading with the neighbouring countries. As more and more IPPs enter within the Namibian ESI, the role of NamPower will evolve. As a single buyer, NamPower is currently responsible for negotiating all Power Purchase Agreements (PPAs) and Transmission Connection Agreements (TCAs) with any power generators in the country. In an evolving power sector market, the current Single Buyer Model needs to be modified in order to introduce competition in the power sector while preserving NamPower's status as the "Supplier of Last Resort".

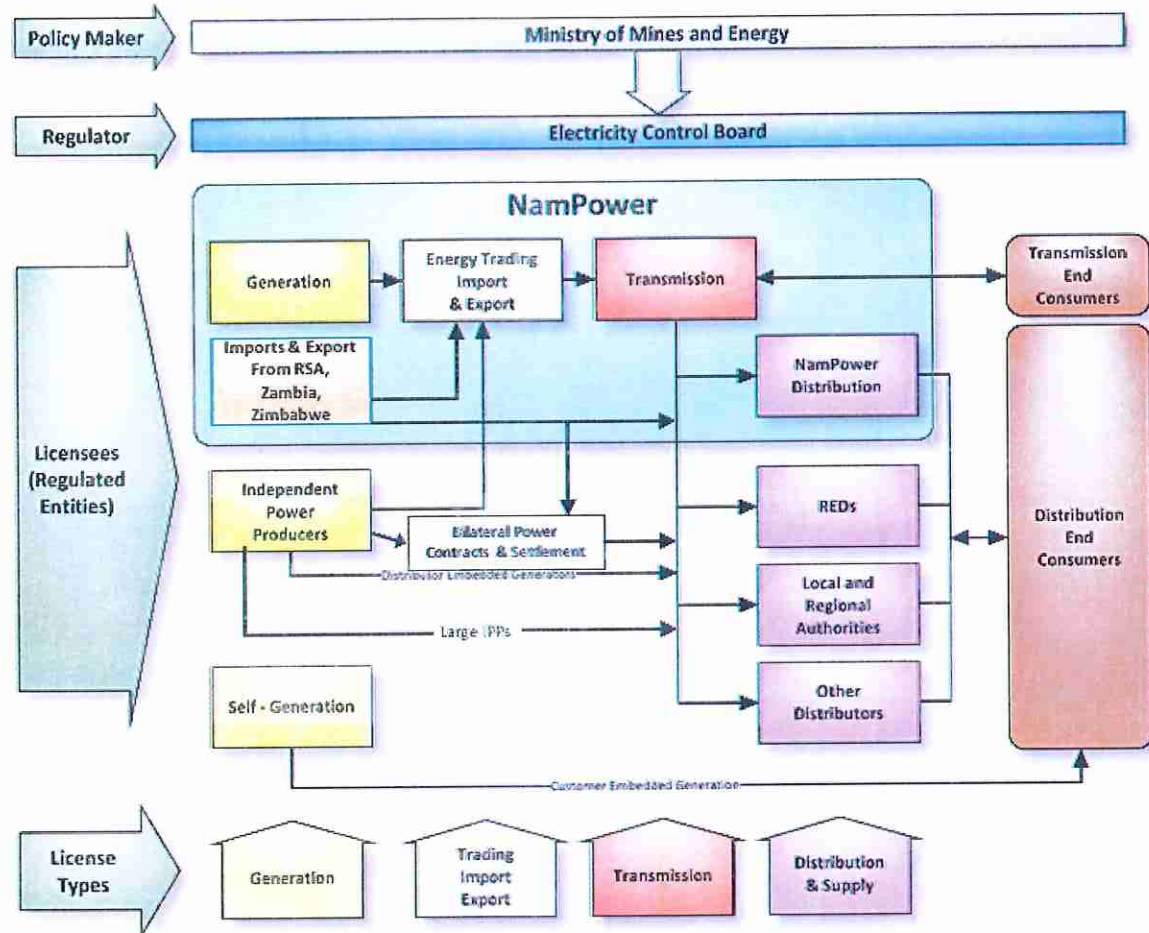
Experience indicates that both the national economy and the consumers benefit when there is competition both among the suppliers and buyers of electricity and this is more apparent as the IPPs begin to enter the electricity market. At the same, it is the Government's responsibility to ensure that the introduction of domestic and international competition in the power sector in Namibia does not unduly pose risks to the major suppliers in the country, especially the national utility -- NamPower. Accordingly, any reform in the current power sector policy must balance the Government's goal to protect its national entities while introducing competition in order to deploy foreign investment and achieve overall ESI efficiency.

1.2.2 Electricity Sector Market Model in Namibia

Currently, for all practical purposes, Namibia is operating on the basis of a SB Model whereby all IPPs must sell their power to a single buyer, the national utility (NamPower). Current developments indicated that both the REDs and the Municipalities are currently engaged in negotiations with various IPPs for the direct purchase of power. In some cases, PPA's have been signed. In this sense, the Namibian power market has already begun to operate as a Modified Single Buyer Model. This National IPP Policy for Namibia mandates that an optimum market model to introduce competition in the power sector and streamline

the process for the entry of IPPs in the Namibian power generation market shall be implemented after an in-depth study to determine the optimum model.³

Exhibit 1: Electricity Supply Industry (ESI) in Namibia⁴



1.2.3 Electricity Sector Regulatory Regime

In addition to having a sound electricity sector policy, including the National IPP Policy, the Government is committed to ensuring that it has a sound, transparent, and fair regulatory regime whereby all market participants in the country's power sector play on a level playing field and under the same rules. The regulator shall continue to be responsible for developing, enforcing and implementing regulations that directly and completely support the Government's energy sector policy. Specifically, the regulator shall undertake the following activities:

- Conduct an in-depth study to determine the optimum future market model to government the ESI;

³ The Electricity Control Board shall commission an in-depth study to develop an optimum power market model for Namibia, including any associated changes to the institutional structure required for the implementation of the optimum model.

⁴ Updated based on the ESI description in the NIRP developed by Hatch, Canada.

- Develop market rules and implementing regulations required for the optimum market model;
- Continue to implement a transparent, fair, and equitable tariff regime including approval of tariff filings by the ESI including IPPs;
- Review and Issuance of licenses to the ESI including the IPPs based on a clearly articulated process for a transparent and fair licensing regime;
- Continue to implement the REFIT rules and regulations, either through the REFIT tariff or competitive tendering in a fair and transparent manner;
- Continue to implement regulations related to Quality of Supply and Service (QoS); and
- Implement other parallel regulations including the regulations for off-grid electrification in accordance with the framework developed as part of Namibia's RE Policy and Electrification Plans.

As the ESI transforms and more IPPs enter the Namibia power market, the regulator shall continue to evolve in order to ensure that all aspects of the Government's energy sector policy are implemented based on fair and transparent regulations. Furthermore, based on its experience with the IPPs, the Government would periodically revise and update the National IPP Policy and the regulator shall revise the implementing regulations, as appropriate.

2 Rationale for the National IPP Policy

2.1 National IPP Policy for Grid-Connected IPP Investments

Given Namibia's vast energy resource potential – natural gas, solar, wind, and biomass – it is incumbent upon Namibia to forge a robust energy sector policy and strategy to (i) reduce and eventually eliminate the country's dependence on imports and (ii) ensure the availability of reliable and affordable electricity to all consumers throughout the Namibian economy, including the country's rural population.

To this end, the Government recognizes the need for an accelerated development of the country's indigenous energy resources and is committed to introduce a private sector led program to deploy private power generation. The Government introduced an IPP regime in early 2000 to deploy investments by IPPs to develop new power generation capacity based on the country's indigenous energy resources. While there has been considerable interest by the IPP industry in developing the country's energy resources, the program has not achieved results in accordance with the Government's expectations. In order to promote small-scale power generation IPP projects based on renewable energy, the Government instituted a Renewable Energy Feed-in-Tariff (REFIT) scheme in 2014. While several licenses have been issued and many IPPs are in the developmental stage, the pace of IPP development is not at par with the significant power sector investment opportunities in the country.

Accordingly, the Government is taking a fresh look at the country's overall energy sector policy and strategy. Currently, the Government has embarked upon multiple parallel efforts to design an overall energy sector development policy and strategy including (i) the development of a National Energy Policy, (ii) an updated National Integrated Resource Plan (NIRP) to develop a least-cost energy sector development priorities and targets, (iii) a Renewable Energy Policy, and (iv) a National IPP Policy. These policies together will drive the overall energy sector development strategy of the country.

In order to achieve an economic growth rate targeted in the Vision 2030 and the NDP 5, Namibia would need to develop its energy resources at a fast pace. Even under a modest growth scenario, Namibia would require an investment in the range of N\$ 90-97 billion during the period 2016 – 2035 in order to meet the demand for new power generation. It is not feasible for the Government alone to finance this level of investment in a single sector of the economy and it is imperative that private investors are motivated and encouraged to meet a large share of this investment requirement. Accordingly, the National IPP Policy is designed by the Government with the express goal of encouraging private sector investment in Namibia's power generation sector.

This National IPP Policy of Namibia is designed to expressly address Namibia's (i) energy supply security, (ii) efficient operations of the ESI, (iii) fair and equitable services to the consumer, and (iv) the availability of sufficient new, reliable, and affordable electricity to meet the development goals of Namibia embodied in (1) Vision 2030, (2) the National Development Plan 4 2012/2013 – 2016/2017, and (3) the Harambee Prosperity Plan (2016/2017 – 2019/2020).

The implementation of any policy requires an institutional process including a clear articulation of the roles and responsibilities of various stakeholders in ensuring that the policy is effectively and efficiently implemented in order to meet its stated goals. Therefore, this IPP Policy also provides an institutional framework for the implementation for the National IPP Policy, including the roles and responsibilities of various stakeholders. Specifically, with respect to the IPPs, this National IPP Policy includes the various requirements for the IPPs to become active members of the power market in Namibia.

2.2 National IPP Policy for Off-Grid Investments

The Government has a commitment to increasing access of modern commercial energy to the country's rural and isolated populations that do not have access to the national grid through creating an enabling environment for accelerating private sector led investments in off-grid projects.⁵

To this end, the Government has embarked upon a parallel initiative to develop and implement a National RE Policy. This policy will not only focus on the overall goals and commitments of the Government to increase the share of RE based clean electricity in the generation mix but also, in parallel, focus on establishing a policy and a regulatory framework to expand off-grid investments. Some 25 percent of Namibian households are not close to the grid and only off-grid solutions can provide them with reliable and affordable access to clean energy. The National Renewable Energy Policy will also include a dedicated institutional arrangement for implementing the off-grid electrification policy of Namibia.

2.3 Alignment with Existing Policies and Frameworks

Given the critical role of energy sector in Namibia's economic development, the Government is committed to ensuring that all relevant energy and development policies and frameworks are (i) in harmony, (ii) reinforce each other, (iii) do not duplicate functions, and most of all (iv), do not contradict each other. To this end, the National IPP Policy has been drafted based on an extensive review of all relevant policies and frameworks including the following:

- The Harambee Prosperity Plan, 2016
- Namibia Vision 2030
- National Development Plan (NDP 5) (2017/18 – 2021/22)
- The White Paper on Energy 1998
- National Integrated Resource Plan (NIRP), 2016
- The Draft Electricity Bill 2016
- Rural Electricity Distribution Master Plan, 2010
- Off-grid Energization Master Plan, 2007
- National Connection Charge Policy, 2015

⁵ The Government's policy to implement a robust off-grid electrification program is detailed in the National Energy Policy and the National Renewable Energy Policy developed separately. The National IPP Policy ensures that the IPP regime is implemented in a consistent manner to address Namibia's off-grid electrification goals.

- National Policy on Climate Change, 2011
- Namibia's Intended National Determined Contribution to the UNFCCC, 2015

In addition, the National IPP Policy has been drafted in coordination with other parallel policy efforts initiated by the Government including the following:

- National Energy Policy, 2017
- Renewable Energy Policy, 2017

3 Objectives of the Independent Power Producer (IPP) Policy

3.1 Vision Statement

The Vision Statement for the National IPP Policy shall be as follows:

"To establish a financially viable and sustainable IPP industry in Namibia."

3.2 Mission Statement

The Mission Statement of the National IPP Policy shall be as follows:

"To develop a national Policy for an efficient IPP industry in Namibia to achieve security of supply."

3.3 Overall Objective

The overall objective of the National IPP Policy is to create an enabling environment for IPPs to enter Namibia's power market, allowing IPPs to invest in the development of Namibia's power generation capacity, in order to achieve the following overall national objectives:

- Improve ESI efficiency through competition;
- Increase access of reliable and affordable electricity to all consumers;
- Support Namibia's economic growth and employment creation targets; and
- Improve the standard of living by alleviating poverty in Namibia.

3.4 Specific Objectives

The specific objectives of the National IPP Policy of Namibia are as follows:

- **Objective 1:** Opening the Namibian power market to private investors and encouraging the investors to participate in the growing Namibian power generation opportunities
- **Objective 2:** Designing a level playing field through a transparent, fair, and equitable policy to guide the entry of private investors in the Namibian power market
- **Objective 3:** Providing a governance structure to address all issues related to the IPPs including the establishment of a structure for the Government to effectively coordinate the entry of IPPs in the Namibian ESI
- **Objective 4:** Supporting the ESI growth and efficiency through introducing competition in the sector and promote relevant market reform
- **Objective 5:** Establishing clear guidelines and regulations for a transparent, fair, and equitable regulatory regime for regulating all aspects of the ESI
- **Objective 6:** Harmonise the requirements for IPPs desiring to enter the Namibian power market including applicable Namibian policies, laws, and regulations

3.5 Scope of the National IPP Policy

The National IPP Policy covers the following areas:

- Instituting an enabling environment for the entry of IPPs in Namibia's power market
- Developing a fair and transparent framework and a level playing field for the introduction of competition in the Namibian ESI
- Streamlining the process and the requirements for the entry of IPPs in Namibia's power market
- Contributing to the establishment of an optimum power market based on fair and transparent rules and regulations for ensuring financial viability and sustainability of the IPPs within the overall ESI
- Ensuring equitable energy resource utilization and efficient and sustainable power sector development

3.6 Guiding Framework

The National IPP Policy is based on the key guiding policies established by the Government of Namibia including the following:

- Vision 2030
- National Development Plans (NDP 5 and successive NDPs)
- Harambee Prosperity Plan
- National Energy Policy of 2017
- Electricity Act (4) of 2007

In addition, the National IPP Policy is drafted based on an extensive review of other prevailing energy policies and frameworks as well as the on-going parallel policy development efforts.

4 National IPP Policy Principles

4.1 Equality

This principle requires that there is no discrimination among participants in the Namibian power market and that all participants, including prospective IPPs, operate on a level playing field and compete under the same clear and transparent rules.

4.2 Efficiency

This principle requires that the ESI operate efficiently in order to serve the consumers. This often requires competition both among the power producers and power off-takers based on fair and transparent market rules and a clearly defined market model and a power tariff regime. Specifically, in order to protect consumers on one hand and the suppliers on the other, the policy and the implementing regulations must conform to the following principles:

- Bulk electricity prices are based on cost of supply
- Retail power supply prices are based on cost of service
- Consumers are charged a fair price based on full transparency of cost of supply and service
- The entire electricity supply and distribution system operates efficiently based on compliance with all regulatory requirements consistent with the country's National Energy Policy and the National IPP Policy

4.3 Simplicity

The National IPP Policy is designed to be simple in that the policy is fair, transparent, and easily understandable. Specifically, the National IPP Policy embodies the following elements:

- Ease of understanding of the provisions contained in the policy by the IPP community, the ESI, and consumers
- Clarity of the institutional structure and the roles of various parties in the IPP process
- Integrated coordination among the various government ministries and enterprises rather than fragmented and vague governance
- Clarity of specific requirements for applications to obtain a generation license from the regulator
- Simplified and clearly stated legal and regulatory requirements for compliance by the IPPs
- Minimal burden on the IPPs to minimize the cost of obtaining a license while ensuring that the process is fully consistent with and in compliance with all Namibian Laws

5 Applicability of the National IPP Policy

The National IPP Policy shall apply to all IPPs, as provided for in the NIRP and referred to in the Electricity Act (4) of 2007.

The National IPP Policy is also applicable as a guide to other relevant stakeholders for planning and decision-making.

6 National IPP Policy Components

The key components of this National IPP Policy include the following:

- Creating an enabling environment to foster private sector investment in Namibia's power generation sector
- Classification of IPP projects
- A clearly established power market model and fair and transparent market rules
- Listing of all environmental compliance and the various permit requirements based on current Namibian Laws and regulations
- Clearly defined land access and acquisition requirements based on Namibian laws
- IPP licensing requirements
- Conformance to and compliance with all other prevailing Namibia Laws, policies, and regulations

6.1 Policy Statement 1: Government shall create an Enabling Environment for IPP Deployment

Policy Statement 1: *This National IPP Policy shall ensure the following:*

All IPPs shall be afforded equal access to the Namibian power generation market under a clear policy framework and a market structure and shall operate under the same fair and transparent rules and regulations.

- *The power sector regulations including licensing requirements shall be transparent, and non-discriminatory.*
- *All IPPs shall be afforded the opportunity to compete in the market under fair and consistent procurement policies, rules, and procedures.*
- *The roles and responsibilities of various government ministries and regulatory entities shall be clearly articulated and that an effective institutional coordination process shall be put in place for simplifying the IPP licensing process under the leadership of the regulator.*
- *Government shall implement effective processes for IPP licensing process and related requirements – land access/acquisition, various permits, compliance requirements, and business support and investment promotion processes.*
- *All IPP projects excluding private off-takers except when connected to the national grid, shall be evaluated in accordance with set priorities of the NIRP and based on their conformance to supporting Namibia's economic and social development goals embodied in the National Development Plans, Vision 2030, and the Harambee Prosperity Plan.*

Namibia is a politically stable country with well-articulated foreign investment policies and electricity tariffs are cost reflective. The Foreign Investment Act and its amendment established the policy and processes for encouraging foreign investment in the Namibian

economy.⁶ In addition, Namibia is well endowed with RE resources. Namibia presents an attractive investment opportunity for domestic and international IPPs. Namibia also has well-established contract laws, procurement policies, and a competitive market. All IPPs irrespective of the size regarding installed capacity must be licenced by the regulator.

6.2 Policy Statement 2: Classification of IPP Projects

Policy Statement 2: National IPP Policy shall designate the following classification for the various sizes of the IPPs:

- *Small-Scale IPP Projects:* Less than 5 MW in generation capacity, including off-grid.
- *Medium-Sized IPP Projects:* All projects greater than 5 MW and up to 100 MW in generation capacity.
- *Large IPP Projects:* All projects greater than 100 MW in generation capacity.

6.2.1 Policy Statement 3: Small-Scale IPP Projects (< 5 MW)

Policy Statement 3: Small-scale IPP projects shall be governed by the Standardized PPA and Standardized Transmission Connection Agreements (TCA) to ensure that all IPPs play on a level playing field with common regulations and requirements for obtaining a license.⁷

Subject to the prevailing market framework, prospective small-scale IPPs will be provided with standardized PPAs and TCAs. Small-scale IPPs can be procured through unsolicited and/or solicited procurement mechanisms in terms of relevant legislation. For this category, no Government guarantees will be made available.

6.2.2 Policy Statement 4: Medium-Sized IPP Projects (5 – 100 MW)

Policy Statement 4: Medium-sized IPP projects that best support the Government's goals to achieve energy self-sufficiency, ensure the availability of reliable and affordable electricity service, and achieve the Government's overall economic and social development goals and objectives shall be established through a competitive selection process in accordance with the NIRP.

Guided by the NIRP and the prevailing market framework, prospective medium-sized IPPs should refer any inquiries to the regulator for detailed licensing requirements and model templates for various agreements and permits required as part as licensing applications.

⁶ The Foreign Investment Act No. 27 of 1990, as amended in 1997, is currently under review. The Act establishes the Namibia Investment Centre (NIC), which operates as a department within the framework of the Ministry of Trade and Industry (now the Ministry of Industrialization, Trade, and SME Development) and has the major responsibility of promoting foreign direct investment in Namibia.

⁷ All standardized PPAs, TCAs, and licensing requirements can be obtained from the Electricity Control Board, Namibia and are published on the Regulator's website (<http://www.ecb.na>). RE Policy as approved by the Minister of Mines and Energy. Prospective IPPs should monitor the development and issuance of this policy, which will provide further policy guidance with respect to the deployment of renewable energy in Namibia.

Government reserves the right to issue Government support through incentives and guarantees. Government will ensure that competitive tenders for procurement of medium-sized IPPs consistent with the NIRP and national legislation be developed and issued.

6.2.3 Policy Statement 5: Policy for Large IPP Projects (> 100 MW)

The policy for large IPP projects shall be as follows:

Policy Statement 5: The National IPP Policy with respect to large IPP projects shall be based on competitive procurement consistent with the NIRP. Under this process the Government shall ensure that that competitive tenders for proposals based on the NIRP be developed and issued.

The NIRP provides guidance for large IPP solicitations and evaluation. Since these projects can affect the financial and operational viability and stability of the ESI there may well be some limitations on the range of acceptable technologies, fuel cycles, and operational modes for larger plants. Accordingly, the Government will ensure that that competitive tenders for procurement of large IPPs consistent with the NIRP and national legislation be developed and issued. Subject to the prevailing laws, Government may consider the necessary support through guarantees and/or other incentives.

6.2.4 Off-Grid Electrification IPP Projects

The off-grid electrification IPP projects shall be governed by the framework developed under the Government's Renewable Energy Policy. The off-grid master plan as developed by the MME will guide the procurement for off-grid electrification projects.

6.3 Policy Statement 6: Government shall assess and elaborate an Electricity Market Model and associated Market Rules.

The National IPP Policy shall initiate the process for developing and implementing a new market model. Through this market model, this National IPP Policy shall ensure that there is sufficient competition at the supplier level (amongst IPPs) and a reasonable level of balanced competition at the off-taker level (among NamPower, the REDs, the Municipalities, and large industrial off-takers such as the mining companies). This level of competition will result in benefits to both the ESI and the consumers.

The specific provision of this Policy shall be as follows:

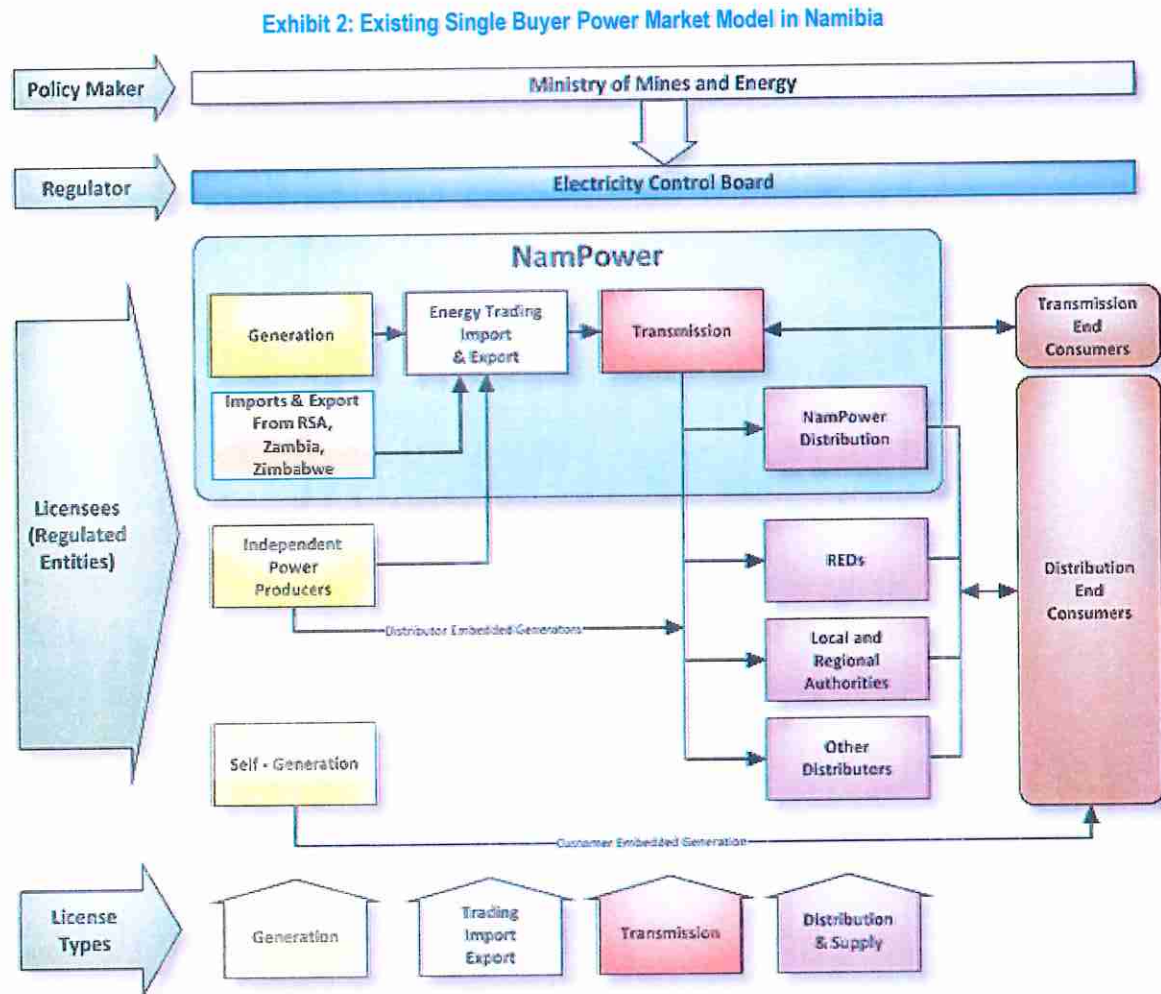
Policy Statement 6: Government shall initiate the following activities:

- *The regulator shall commission a study to design an optimum market model.*
- *The Regulator shall submit its recommendation regarding the choice of the optimum market model to the Government for approval.*
- *Once the optimum market model has been approved by the Government, the regulator shall develop implementing regulations.*
- *Market participants shall be granted access to the transmission network. REDs and large off-takers will be able to contract directly with IPPs, purchasing firm transmission capacity from NamPower.*
- *System operation shall become a fully transparent entity, publishing its supply and demand balance on a near real-time basis.*
- *Imports and exports of energy and power will become more transparent as power flows through SAPP as well as bilaterally will be published on a near real-time basis.*
- *IPPs will be able to spread risk across a number of consuming entities, reducing their market and regulatory risk, thereby encouraging more generation investments in Namibia⁸.*
- *The National IPP Policy envisages the establishment of a “Bilateral Contracts and Settlement Entity” that would register contracts and coordinate with NamPower Transmission and system operation. This move would not eliminate NamPower Trading, but would establish an entity to carry out the coordination role with non-affiliated entities.*

⁸ For example, one of the long-standing problems with large IPPs, leading to proposed project suspensions, is the use of fuel supplied at international prices. This creates a significant foreign exchange risk for a Namibian currency purchaser, such as NamPower. However, if the forex part of the PPA can be provided through waterfall arrangements with mining companies, who sell in dollars as well, then the risk to a putative IPP can be reduced.

6.3.1 Existing Electricity Model

Currently, Namibia operates *de jure* on the basis of a SBM whereby NamPower acts as a single buyer and all IPPs must sell their power to NamPower. Exhibit 2 provides an illustration of the current SBM in Namibia.



In order to address the inherent deficiencies in the SBM, the national IPP Policy shall initiate the process for the design and implementation of a market model that facilitate the implementation of this Policy.

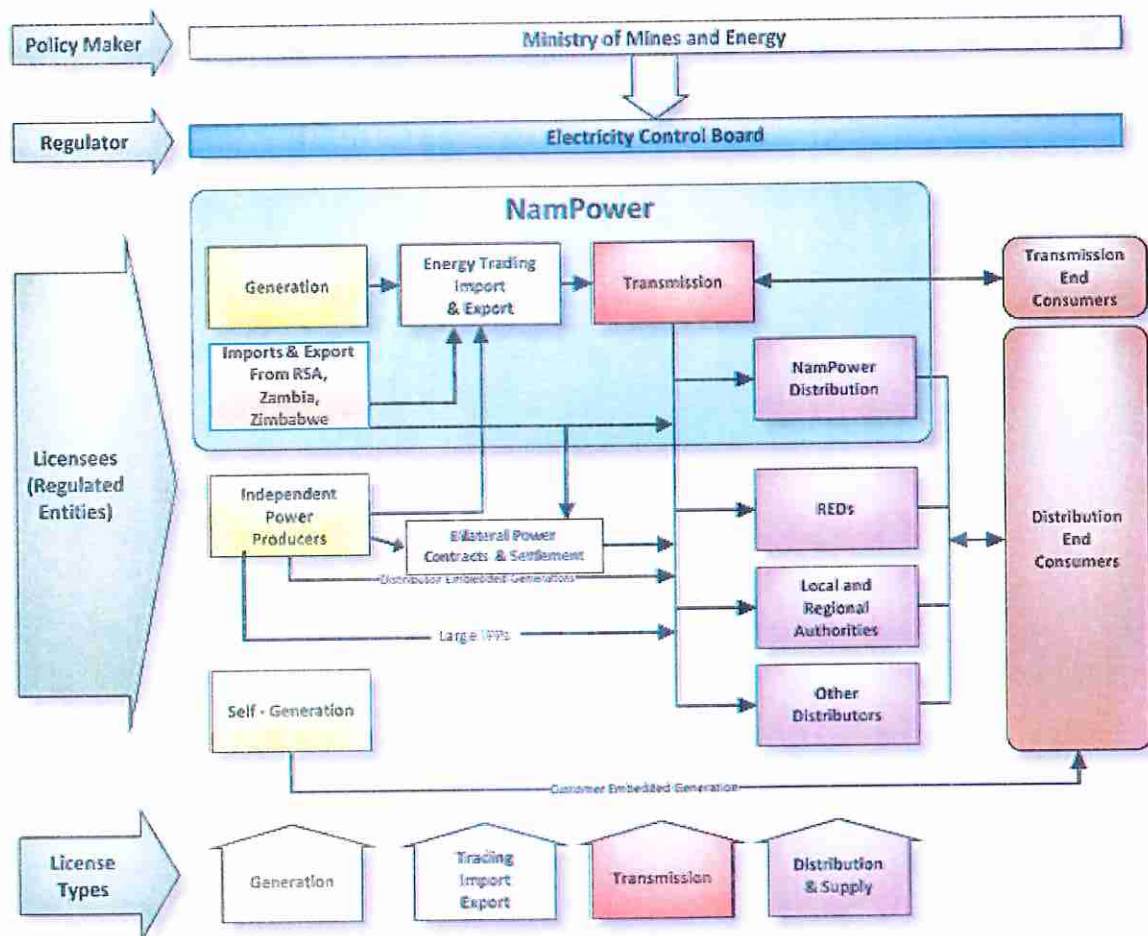
6.3.2 Modified Power Market Model

To better meet future electricity needs and accommodate new technologies, the Government of Namibia, through this National IPP Policy shall adapt the market model to a broader array of transactions and electricity sources. These modifications shall be developed and implemented in order to conform the development of the ESI in Namibia to transaction types already under way between IPPs and the REDs. Exhibit 3 provides an

illustration of an MSBM that could serve Namibia’s needs for the reform of the country’s power market.⁹

The key differences between this illustrative MSBM and the existing SBM is the acknowledgement of bilateral trading agreements. Such transactions, already a fact in the Namibian power system, would be formally acknowledged in this new model. Generators would not be forced to sell output only to NamPower but also directly to REDs and other large customers. As other countries have learned, a variety of market arrangements can, if properly implemented, induce additional investments in supply, desperately needed by Namibia at the present time.

Exhibit 3: Modified Single Buyer Power Market Model



The illustrative MSBM provides a balanced approach to managing the electricity market in Namibia and, while short of full-scale wholesale competition in the power sector, provides both generators and users with more options in a still-structured environment.

⁹ As a key component of the National IPP Policy, the Electricity Control Board shall commission an in-depth study to design an optimum Modified Single Buyer Model and once adapted, the Regulator shall develop market rules and implementing regulations.

6.4 Policy Statement 7: Electricity Pricing in Namibia

The policy on electricity pricing as part of the National IPP Policy shall be as follows:

Policy Statement 7: *The development of electricity prices in Namibia shall generally follow these principles:*

- *The prices shall be based on sound economic principles reflecting the cost of supply;*
- *The prices shall be such to enable producers, network operators, and sellers to cover reasonable costs;*
- *The prices shall be such to encourage additional domestic sources of supply;*
- *The prices shall be such to permit electricity generators to sell at a price that is within the framework of regulated tariffs; and*
- *The prices shall be such to discourage inefficient energy supply options.*

Namibia is a price taker in electricity markets. That means for all aspects of its electricity supply system – fuels, generation plants, networks, and imports – Namibia cannot control the prices paid for either the inputs to electricity supply or the electricity itself. For pricing of electricity, therefore, Namibia must then resort to the iron law of markets – charge prices for resale of electricity that cover all costs of supplying that electricity.

In addition to its primary role in covering costs, electricity pricing in Namibia should also provide signals/incentives to both suppliers and consumers. On the supply side, this generally means:

- What types of generation technologies, and fuel cycles are the most efficient and cost effective?
- Where the plants should be constructed to best integrate with the transmission network and emerging demand centres?
- Who should build these plants?
- What is the trade-off between generation and transmission in regard to service quality and cost of supply?

On the consumers' side, the role of prices is to make consumers aware of the true cost of the electricity that they use. Once costs can be fully recovered then the role of electricity prices is to ensure that consumers understand the importance of where and when electricity is consumed most efficiently. Only after full cost recovery pricing is in place can programs to increase the efficiency of electricity use be introduced with greater success.

Finally, electricity prices need to take into account the growing role of renewable energy technologies. In a small market, such as that in Namibia, the potential role of some renewables, especially solar, may well be great enough to affect system operations and stability in the future.

In addition, as a nation heavily dependent on mining and services, Namibia's electricity costs cannot lead Namibia's economy to be uncompetitive. However, prices need to be such to

support reliable supply from a variety of sources, generation technologies, fuel types, and trade. This is the balancing act that electricity prices must play in Namibia.

6.4.1 Wholesale Electricity Tariffs

At almost any point in time there is a single “best” combination of fuel and technology for the expansion of a country’s electric power system.

Namibia’s wholesale power market will face world prices and concomitant fluctuations for the greatest share of generation. According to the NIRP, the least-cost solutions will combine varying proportions of domestic gas (Kudu), imported LNG, imported coal, fuel oil, imports, and renewables, primarily wind and solar. The wholesale electricity prices will need to accommodate these energy sources, which will probably mean a weighted average cost of generation, probably varying by time of day or season, accounting for fluctuations in domestic demand and hydro system operations in Namibia and in other SAPP countries.

6.5 Policy for IPP Licensing

Policy Statement 8: All IPPs shall comply with all Namibian laws and regulations including specific regulations related to tariffs and IPP licensing requirements implemented by the regulator.

This National IPP Policy is consistent with the role and authority vested in the regulator in accordance with the Electricity Act 2 of 2000, which has been subsequently repealed by the Electricity Act 4 of 2007 as may be amended from time to time.

6.5.1 IPP Licensing Application Requirements

Detailed licensing application requirements can be obtained from the regulator.¹⁰

6.5.2 Power Purchase Agreements (PPAs)

All PPAs must be submitted to regulator for regulatory oversight.

6.5.3 Transmission Connection Agreement (TCA)

All TCAs must be submitted to regulator for regulatory oversight.

¹⁰ ECB website (www.ecb.org.na) provides detailed IPP application guidelines, information requirements, a standard advertisement format and a generation license application.

Policy Statement 12: For Small-scale IPPs, this National IPP Policy reaffirms the authority of the regulator to have regulatory oversight of the Transmission Connection Agreements (TCAs) between the IPPs and off-takers (NamPower or Distribution licensees) in accordance with the published model TCA available from the regulator.

Policy Statement 13: For Medium-sized IPPs and Large IPPs, this National IPP Policy allows the IPPs and NamPower to mutually negotiate the TCA subject to regulatory oversight by the regulator as part of the licensing process.

6.5.4 All IPP Application Requirements

Other requirements for all IPP applications shall be determined by the regulator.

The technical description of the project shall be detailed enough to include information on project size, technology, and location. The project description shall also include the documentation of any technical risks of the project and the approach to mitigate or remove such risks.

Specifically, all IPP license applicants shall be required to conduct a detailed financial analysis of the proposed IPP project in accordance with international best practice methodologies and demonstrate, as part of their application, the financial viability of the project in terms of the project's ability to guarantee a return on investment to the investors in line with the approved regulated rates of return and debt service payments to the lenders.

6.5.5 National Economic Benefits of the Project

Policy Statement 16: All IPP licensing applicants shall demonstrate the national economic benefits of the proposed IPP project as part of the application for license.

Specifically, all IPP license applicants shall be required to conduct a detailed economic analysis of the proposed IPP project in accordance with guidelines issued by the regulator which shall analyse, as part of the application, the national economic benefits of the proposed project in terms of the national gross domestic product (GDP), national employment creation, and income generation and reserve the right to add any other conditions.

6.5.6 Development Impacts of the Project

Policy Statement 17: All power generators including IPPs applying for a generation license shall demonstrate the development impacts of the proposed IPP project as part of the application for a license.

Specifically, all IPP license applicants shall be required to conduct a development impact assessment of the proposed IPP project in accordance with guidelines issued by the regulator which shall analyse, as part of the application, the national development benefits of the proposed project in terms of increased electricity access to unserved or underserved populations, development of small and medium enterprises, the extent of additional integration between rural and urban populations including any trade related impacts, and additional local income generation and improvement in quality of life and reserve the right to add any other conditions.

Specifically, the IPP project sponsors/developers shall demonstrate in their license applications the direct benefits of the project to local industry and related local capacity/skills development and technology transfer impacts.

6.5.7 Project Financing Plan

Policy Statement 18: *All applications for a license for an IPP project shall include a detailed project financing plan for the IPP applicant to establish the financial viability of the proposed project.*

Specifically, the Project Financing Plan required of all IPP applicants, shall, as part of the application for license, include the debt and equity provisions, pro forma term sheets, letters of intent from investors and lenders delineating return on investment and debt service conditions and any other details that shall ensure that the proposed project does not face unmanageable financing risks.

6.5.8 Project Security, Risk Analysis, and Risk Mitigation Plan

Policy Statement 19: *All IPP license applicants shall conduct and submit a risk analysis and risk mitigation plan as part of their application for a license.*

A specific goal of the National IPP Policy is to ensure that all IPP licenses are awarded on the basis of a clear understanding of the risks associated with any IPP project proposed by an applicant that could adversely affect the ESI and the government's ability to achieve its national development goals.

The IPP applicants shall, therefore, conduct analyses of technical, financial, and implementation risks of the proposed project and submit their analysis with their application for license. Specifically, the IPP license applicants shall conduct detailed analyses of cost and schedule risks associated with the implementation of the proposed project and the proposed remedial actions.

With respect to project security, the National IPP Policy requires that all IPP project license applicants establish the security of the project as part of their application for license. Specifically, the IPP applicants shall include third-party guarantees, fuel supply agreements (if applicable), project implementation agreement, operations and maintenance agreement,

details of capacity and energy payments, and default provisions and strategies to prevent default as part of their application for a license.

6.5.9 Greenhouse Gas (GHG) Emissions and Climate Resiliency of Proposed Projects

Policy Statement 20: All IPP projects shall comply with the regulatory requirements with respect to GHG emissions and the project developers shall document such compliance. Furthermore, all IPP license applicants, as part of their application, shall submit the estimated GHG emissions from the proposed project and document that such emissions comply with the Government's GHG regulations.

In addition, all IPP license applicants shall ensure that all proposed IPP projects are climate resilient. All IPP license applicants, as part of their application for license, shall include an analysis of the climate resiliency of the proposed IPP project based on historical climate-related events at and around the site proposed for the IPP project.

The Ministry of Environment and Tourism (MET) of the Government of the Republic of Namibia has adopted a National Policy on Climate Change for Namibia. In addition, Namibia is a signatory to the United Nations Framework Convention on Climate Change and is an active participant in international climate change dialogues. The MET, as the highest environmental body within the Namibian Government, is responsible for ensuring that all development projects comply with applicable laws and regulations related to GHG emissions.¹¹

All IPPs shall comply with all applicable environmental laws, policies and regulations as per the Environmental Management Act, No 7 of 2007.

The following specific laws contain provisions and requirements that all IPP applicants shall review prior to preparing and submitting applications for an IPP project license:

- **Environmental Management Act of 2007:** This Act creates a comprehensive national framework for assessing the potential impacts of new land developments. All IPP projects require land in order to site projects. The provisions of this law provide specific guidelines and requirements that must be complied with for the development of any land in order to construct any projects including IPP projects. Most importantly, under this Act, the Department of Environmental Affairs enforces provisions related to land parcels that are protected by the Government in order to ensure biodiversity, conservation, and wildlife protection.

While many of the following environmental requirements trigger only during the construction stage of an IPP project, it is important for all IPP applicants to be aware of these requirements and explicitly incorporate them in their IPP licensing applications:

- Environmental and Social Management Plan (ESMP) for the Proposed Project

¹¹ All interested IPP developers must contact the Ministry of Environment and Tourism for all applicable environmental laws and regulations governing the country's ESI.

- ♦ Environmental and Social Impact Assessment (ESIA) for the Project – Including any resettlement impacts and Resettlement Action Plans (RAPs)
- ♦ Health and Safety Management Plan for the Project
- ♦ Hazardous Waste and Waste Management Plan for the Project
- ♦ Other provisions specific to a particular IPP project that may be required under the Environmental Management Act of 2007

All IPP applicants shall pay specific attention to the requirements of any permits prior to an IPP project implementation in consultation with the Department of Environmental Affairs at the MET.

6.5.10 Compliance with Land Access and Acquisition Policies and Requirements

Policy Statement 22: Government through the relevant Ministry shall develop standardized procedures for land acquisition by IPPs on all categories of land to facilitate the development of IPP projects at appropriate sites by project developers. Standardized models with clear and predictable requirements shall be developed in consultation with different land owner categories and shall ensure adequate benefit-sharing, but shall also enable accelerated timelines for land access.

One of the major barriers faced by IPPs project developers is the challenge of acquiring or leasing land for new projects. Under Namibian law, land rights are vested in three distinct categories of owners: private land owners, the state (predominantly conservation areas), and communities.

6.5.11 Compliance with Government's Industrial Development Policy Requirements

Policy Statement 23: All IPPs shall develop projects for obtaining licenses consistent with the Government of Namibia's industrial development policy and regulations.

The Ministry of Industrialization, Trade, and Small and Medium Enterprise (SME) Development, administers the Government's policy on industrialization. The Ministry is responsible for recommending industrial projects of national interest to the Ministry of Finance and the line Ministries. Such projects are categorized as "Promoted Projects" and are developed based on the individual sectoral priorities as embodied in the Government's National Development Plans (NDPs).

6.5.12 Compliance with Government's Labour Laws and Policies

Policy Statement 24: All IPPs shall comply with all applicable Labour laws and policies.

Legislation, policies and regulations with respect to labour are administered by the Ministry of Labour and Social Welfare. Specific provisions of the labour policies and laws in the

country applicable to IPP projects include workers' rights, fair employment practices, fair wages, Affirmative Action provisions, occupational health and safety, and a required minimum level of local Namibian content. All of these policies will have an impact on the implementation of any IPP project.

Currently, the Government is in the process of developing a New Equitable Economic Empowerment Framework (NEEEF) that would also have an impact on IPP project implementation with respect to Namibian local content.

IPP applicants must be cognizant of such policy and regulatory requirements, as they will have an impact on the financial viability and implementation of any IPP projects.

In addition to compliance with the Government of Namibia's laws with respect to energy, environment, land, and labour, all investors, including IPPs, shall comply with all other applicable Namibian laws and regulations including contract laws; business licensing laws; taxation, customs, and duties requirements; specialized standards requirements (e.g. ISO Certifications); and other applicable regulations in order to ensure that any planned IPP investments are not only financial viable but can, in fact, be implemented without undue risks and delays. IPPs must ensure that they acquire an understanding of all Namibian laws and regulations that may impact their planned investments in the Namibian economy.

7 Guidelines for the Implementation of the National IPP Policy

The following actions shall be taken as part of the implementation of the National IPP Policy:

- The regulator shall commission a study to design an optimum market model
- Market participants shall be granted access to the transmission network on a non-discriminatory basis, subject to the payment of network fees and the technical requirements of the network. REDs and large off-takers will be able to contract directly with IPPs, purchasing firm transmission capacity from NamPower as per the market framework.
- System operation shall become a fully transparent entity, publishing its supply and demand balance on a near real-time basis
- IPPs will be able to spread risk across a number of consuming entities, reducing their market and regulatory risk, thereby encouraging more generation investments in Namibia¹²

The National IPP Policy envisages the establishment of a “Bilateral Contracts and Settlement Entity” that will register contracts and coordinate with NamPower Transmission and System Operation. This move will not eliminate NamPower Trading, but will establish an entity to carry out the coordination role with non-affiliated entities.

7.1 Implementation Guidelines for IPP Projects

The Government of the Republic of Namibia will utilize different approaches for the implementation of small, medium and large IPP projects.

The Government reserves the right to reject any such IPP project proposals that do not meet with the NIRP and or Government’s development priorities.

7.2 Roles of Various Stakeholders

The implementation of the National IPP Policy is governed by the NIRP consistent with the roles of various stakeholders with a direct impact on the development of an IPP regime in Namibia that will support the national economic and social development goals of the country embodied in the Vision 2030, the NDPs, and the Harambee Prosperity Plan.

A large number of stakeholders have a direct role in implementing the National IPP Policy. These include Government ministries, the regulator, the ESI (including NamPower, the REDs and the Municipalities), industry associations and consumer groups, and academic and research organizations. The roles of the key stakeholders are defined as follows:

- **Ministry of Mines and Energy:** Development and update of National IPP Policy in coordination with other ministries, the municipalities and local authorities, and the broader stakeholder community and submission to the Cabinet for approval

¹² For example, one of the long-standing problems with large IPPs, leading to proposed project suspensions, is the use of fuel supplied at international prices. This creates a large foreign exchange risk for a Namibian currency purchaser, such as NamPower. However, if the forex part of the PPA can be provided through waterfall arrangements with mining companies, who sell in dollars as well, then the risk to a putative IPP can be reduced.

- **Other Government Ministries:** Other Government Ministries with a direct role in the development and implementation of IPP projects (e.g., Ministry of Finance, Ministry of Environment and Tourism, Ministry of Land Reform, Ministry in Charge of National Planning Commission, Ministry of Labour, Industrial Relations and Employment Creation, and others)
- **Electricity Control Board (the regulator):** Development and Implementation of IPP regulations to implement the National IPP Policy including issuing licenses and approving tariffs in an independent, transparent, fair, and non-discriminatory manner through extensive stakeholder consultation
- **The Electricity Supply Industry:** Provision of reliable and affordable electricity services to Namibian consumers in accordance with this National IPP Policy and all applicable laws and regulations
- **Municipalities and Local Authorities:** Ensuring that the ESI including new IPP entrants in the electricity market operate in accordance with municipal and local policies and regulations
- **Industry Associations and Consumer Groups:** Periodically advise the Government and ESI on electricity sector issues relevant to energy supply security, provision of reliable and affordable electricity service to consumers, and recommendations for policy and regulatory reform to ensure efficient electricity service delivery
- **Academic and Research Organizations:** Conducting research and pilot demonstration of projects in order to provide the Government with latest information relevant to the development of the IPP industry and updating of the National IPP Policy

7.3 National IPP Policy Governance Framework

The implementation of the National IPP Policy establishes an overall governing body that sets the key principles of policy implementation and has the decision-making authority to modify the Policy in the best public interest consistent with the Government's national development goals.

7.4 National IPP Policy Implementation Structure

7.4.1 Issuance of IPP Licenses and Approval of PPAs and TCAs as amended from time to time

In accordance with the authority vested with the regulator, the regulator shall be responsible for review of IPP license applications and making the recommendation to the Minister of Mines and Energy for the issuance of licenses to IPP applicants. In addition, the regulator shall be responsible for regulatory oversight of all PPAs and TCAs submitted by the license applicants.

7.4.2 IPP Procurement

The regulator shall continue to administer the REFIT scheme including recommending to the Minister of Mines and Energy the awarding of licenses to prospective applicants for projects less than 5 MW in generation capacity.

For projects ranging from 5 MW to 100 MW and higher, in accordance with the National IPP Policy, IPP projects shall be selected based on the least-cost solutions in the NIRP and a tendering approach in line with the relevant legislation.

For large IPP projects, similar to IPP projects of any size, shall be consistent with the least-cost plan in the NIRP. In addition, all such IPP projects shall be procured in line with relevant legislation. Regulatory oversight of the PPA and TCA by the regulator is required.

7.5 Policy Review

The IPP Policy is to be reviewed every 5 years by the Ministry responsible for Energy and Electricity to incorporate new market dynamics and developments.

8 One Stop Licensing Process for IPPs

The Government of Namibia recognizes the importance of ensuring that prospective IPPs are afforded a fair opportunity to participate in the Namibian electricity market. Therefore, the Government is committed to ensuring that the burden of project development and the preparation of proper and complete applications for licenses is minimized on all prospective IPP applicants. To this end, the regulator is designated as the first stop for all IPP applicants to receive proper guidance and information required for the completion of an application for license.

The regulator will guide all prospective IPP applicants regarding the details of the IPP licensing process and all information required as part of the license application including where the IPPs may find such information with respect to various Government laws and regulations.

9 Implementation, Monitoring and Evaluation

The Government of Namibia places a very high importance on continuous policy and governance reform in the country in order to meet the country's national development goals and objectives. In a rapidly evolving economy, it is incumbent on the government to periodically review the progress of various policies and make adjustments necessary to keep the country on the path to achieving the desired economic and social development objectives.

Ensuring Namibia's energy supply security and the provision of reliable and affordable electricity service to all consumers in the country is a national priority of the Government in order to support its development goals. Given the massive investments needed to achieve the national self-sufficiency goal, the Government is committed to encouraging the entry of private investors in Namibia's power generation market.

The overall goal of this National IPP Policy is to establish a roadmap and path towards accelerating the entry of IPPs in the Namibian power market. Given the rapid changes in the Namibian ESI and the pace with which domestic and international IPPs are entering the Namibian market, the government is committed to ensure that the performance of this National IPP Policy is continuously monitored.

Therefore, this National IPP Policy recognises the monitoring function within the Ministry of Mines and Energy to monitor and evaluate the progress of implementation of this policy. The Ministry in Charge of National Planning Commission has an on-going monitoring and evaluation (M&E) function to monitor key Government policies and their outcomes. With respect to the National IPP Policy, the M&E function shall include both qualitative and quantitative assessments of the impacts of National IPP Policy on the Namibian economy. The M&E plan shall develop indicators, baseline, targets, unit of measure, and outcomes in consultation with the regulator and the ESI in order to assess the performance of the National IPP Policy.

Appropriately designed indicators inform policy makers on the progress towards achieving the policy objectives. For the National IPP Policy the targets shall include the following:

- Increase in the Gross Domestic Product (GDP) directly attributable to the implementation of IPPs (measured in Namibian Dollar)
- Impact on income generation (measured in additional income in Namibian Dollar)
- Number of jobs created (measured in new employment – both temporary and permanent)
- Additional power generation capacity added to the Namibian grid (measured in MW)
- Number of additional households with access to electricity (measured by household and household income)
- Number of new businesses established as a result of new generation capacity (measure in new businesses established by category – tourism, commercial, industrial, mining, cottage industry, farming, etc.)