

## Documentation To Be Provided As Part Of Tender Submission

- 1 **Tender Form**
- 2 **Schedule of Offer (Part One)**
- 3 **Schedule of Offer (Part Two)**
- 4 **Company Credentials**
  - **Statement of Financial Capability**
  - **Statement of Relevant Technical Capability**
  - **Statement of PNG Experience**
  - **Statement of Previous PPL Dealings**
- 5 **Company Certifications (PNG Based Companies)**
  - **IPA Registration No**
  - **GST Registration No**
  - **COC Number**
- 6 **Company Certifications (Overseas Based Companies)**
  - **Certificate of Accreditation / Quality Assurance**
- 7 **Product Technical Credentials**
  - **Product Brand Name**
  - **Name / Location of Manufacturer**
  - **Quality Assurance Certification of Manufacturer**
  - **Technical Specification / Drawings/ Catalogues as available**
  - **Confirmation of Compliance with PPL Technical Specification**
  - **Advice of any variations to PPL Technical Specification**
- 8 **Other Supporting Documentation**

**Tenderers should provide any other documentation that supports the Authenticity/Capability of their Supplier / Manufacturer.**





**PAPUA NEW GUINEA POWER LTD.**  
**SCHEDULE OF FORECAST REQUIREMENTS AND OFFER**

ANNEX A TO:  
 CONDITIONS OF TENDER

LOCATION: PORT MORESBY, LAE, RABAU, GOROKA

PAGE: 1

PART 1		REQUIREMENT					OFFER			
Item No.	Vocab No.	Description	Spec. App No.	Unit of Issue	Forecast Requirement	Unit Price	STD Pack	Comment	Reserved for internal use	
(a)	(b)	©	(d)	(e)	(f)	(g)	(h)	(i)	(j)	
1	111085	Cable, 24/0.20, 3 Core, Dia. 0.75MM <sup>2</sup> , Flexible PVC Sheathed, PVC Insulated, 0.6/1KV grade.	1	Metres	8,000					
2	111086	Cable, 32/0.20, (1MM <sup>2</sup> ) 3 core, Flexible. PVC insulated, 0.6/1KV Grade	2	Metres	12,000					
3	111087	Cable, 30/0.25, (1.5MM <sup>2</sup> ) 3 core dia., Flexible. PVC insulated, 0.6/1KV Grade	3	Metres	8,000					
4	111095	Cable, 24/0.20, 3 core, VRI Cotton Braided, Flexible	4	Metres	2,000					



**PAPUA NEW GUINEA POWER LIMITED**

**(FAILURE TO COMPLETE AND SIGN THIS PART WILL INVALIDATE THE TENDER)**

**PART 2**

A		BASIS OF PRICING			
Line No.	Supplier Category	DESTINATION DEPOTS			
(a)	(b)	POM (c)	LAE (d)	RABAUL (e)	GOROKA (f)
1.	In Country				
2.	Overseas	Ex Wks/FOB	Ex Wks/FOB	Ex Wks/FOB	Ex Wks/FOB

**1. EXPLANATORY NOTES:**

The destination depot for this tender appears at columns c, d, e, or f. Please complete as follows:

**2. OVERSEAS SUPPLIERS:**

Your pricing options are already entered at line 2. Delete one option and leave that on which your price has been based under the destination depot of this Tender. If no deletion has been made, the contract will be FOB costs.

**3. PNG SUPPLIERS:**

Where your supply is sourced locally to the destination enter "FIS" on line 1 under that depot. Where your supply is sourced from another province to that of the destination depot, enter "FOB" under the destination depot with the Port of shipment.

- 3.1 Please note last line of paragraph 7 of the "Conditions and specifications for the supply of goods and materials" on "GST". This is a vital condition of your offer and failure to observe this condition may result in your offer declared informal and not included for consideration.

B		PRODUCT ORIGIN	
Line No.	Schedule Item Number	Country of Manufacturer	
	(a)	(b)	
1.			
2.			

**C DECLARATION**

In respect of the offer in Part 1 of the schedule, I make the following declaration.

- Supply will conform with the conditions of Tender as specified.
- The price basis of the offer has been clearly identified in Part 2 - A in accordance with explanatory notes.
- The country of manufacturer of the product is given at Part 2 - B.
- In accordance with paragraph 3.1 of the explanatory notes. GST of.....% has been included.

Company Name.....  
 & Address:.....  
 Fax No..... Phone:.....  
 Email:.....  
 NAME:..... Signature:.....  
 Title:..... Date:...../...../.....

## MATERIAL SPECIFICATION

VOCAB NUMBER	ITEM DESCRIPTION
111085	CABLE: 24/0.20, 3 CORE, DIA. 0.75MM <sup>2</sup> , FLEXIBLE PVC SHEATHED, PVC INSULATED, 0.6/ 1KV GRADE

### SPECIFICATION DETAILS

**1. GENERAL REQUIREMENT:**

- 1.1 The cable shall have PNG Power Limited type approval and the approval number must be quoted on the Tender.
- 1.2 All cables supplied shall comply with the appropriate Australian/ New Zealand Standards as per the attached Addendum I.
- 1.3 Goods meeting other authoritative standards (such as I.E.C. Publication 228) which ensure an equal or higher quality than the standard stated will also be acceptable but subject to PNG Power Limited type approval.

**2. SAMPLES**

- 2.1 PNG Power Ltd may request the submission of samples for approval prior to bulk production.

**3. PACKING**

- 3.1 The cables shall be suitably packed in wooden drums having softwood sides and battens. The total weight shall not exceed 900Kg. Preferably drum size to be 0.6m x 1.25m. Drums to be to AS/NZS 2857 – 1986 Timber drums or AS 3983 – 1991 Metal drums, capable of a storage life of four years under tropical conditions.

- **Unit of Measure:** Metre
- **Rejection:** PNG Power Ltd reserves all rights to reject whole or part of the order not complying with this specification and is not liable for any cost or loss with the return of rejects to the Supplier. Facilitation of Invoice Credit must commence between the supplier and PNG Power Ltd through the process of PNG Power Ltd Discrepancy Report provisions.

**Drawing References:**

**Manufacturer's Product Code:**

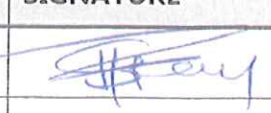
### STANDARDS COMMITTEE APPROVAL

Approval by Alex Oa  
Chairman

Signature: 

Date: 17/1/17

### DATA REVIEW ENDORSEMENT

NAME	TITLE	SIGNATURE	DATE
Grevasias Peni	Team Leader - Standards and Materials		6/12/16

**SPECIFICATION FOR VOCAB: 111085****4. MAKING**

4.1 Each drum shall be clearly marked with the information specified in AS / ANZ 2857 or AS 3983.

**5. MATERIAL SPECIFICATION**

All cables supplied under this order or tender, as the case must comply with the appropriate approval, material specification or standard by the PNG National Institute of Standards and Industrial Technology and must have been issued with a certificate of suitability, from Approvals Section of Consumer Services Branch of PNG Power Limited. A certificate issued by a Supply Authority in Australia, for specific cable item be produced with sample, when approval is sought for use in Papua New Guinea.

Whilst standards are grouped under certain headings, referral to the **Actual Standard** in most cases, call up other applicable standards.

**APPROVAL AND TEST SPECIFICATIONS**

- a AS3147 – 1992 - PVC insulated electric cables for working voltages up to and including 0.6/1KV
- b AS3158 – 1994 - PVC Insulated cables and flexible cables for working voltages up to and including 0.6/1KV
- b I.E.C.287 - 1982 - Calculation of the continuous current rating cable (100% load factor).
- d I.E.C.724 - 1982 - Guide to the short-circuit temperature limits of electric cables with rated voltage not exceeding 0.6/1KV.

**6. INSULATION AND TEMPERATURE LIMIT**

- a. Cables shall have a minimum insulation temperature rating of 75°C or classed as V75 unless otherwise specified.
- b. All cables shall have the correct characteristics for installation under AS3000 – Wiring rules and AS3008 part 1 and 2

**7. HIGH VOLTAGE**

Cables shall be tested under AS1660 – Methods of test for cables and flexible cords (including conductors, insulation and sheath).

- Part 1 - 1993 Test methods for conductors and metallic components
- Part 2 - 1993 Test methods for insulation, extruded semi conductive screens and non-metallic sheaths
- Part 3 - 1993 Electrical Tests.
- Part 4 - 1993 Complete cables flexible cords.

**8. DISTINGUISHING COLOURS OF CABLES**

As per Rule 3.2 of AS3000 – 1991, SAA wiring Rules (PNGS1022).

## MATERIAL SPECIFICATION

VOCAB NUMBER	ITEM DESCRIPTION
111086	CABLE: 32/0.20, (1MM <sup>2</sup> ) 3 CORE, FLEXIBLE. PVC INSULATED, 0.6/ 1KV GRADE

### SPECIFICATION DETAILS

**1. GENERAL REQUIREMENT:**

- 1.1 The cable shall have PNG Power Limited type approval and the approval number must be quoted on the Tender.
- 1.2 All cables supplied shall comply with the appropriate Australian/ New Zealand Standards as per the attached Addendum I.
- 1.3 Goods meeting other authoritative standards (such as I.E.C. Publication 228) which ensure an equal or higher quality than the standard stated will also be acceptable but subject to PNG Power Limited type approval.

**2. SAMPLES**

- 2.1 PNG Power Ltd may request the submission of samples for approval prior to bulk production.

**3. PACKING**

- 3.1 The cables shall be suitably packed in wooden drums having softwood sides and battens. The total weight shall not exceed 900Kg. Preferably drum size to be 0.6m x 1.25m. Drums to be to AS/NZS 2857 – 1986 Timber drums or AS 3983 – 1991 Metal drums, capable of a storage life of four years under tropical conditions.

- **Unit of Measure:** Metre
- **Rejection:** PNG Power Ltd reserves all rights to reject whole or part of the order not complying with this specification and is not liable for any cost or loss with the return of rejects to the Supplier. Facilitation of Invoice Credit must commence between the supplier and PNG Power Ltd through the process of PNG Power Ltd Discrepancy Report provisions.

**Drawing References:**

**Manufacturer's Product Code:**

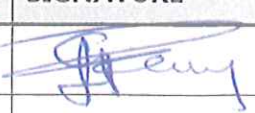
### STANDARDS COMMITTEE APPROVAL

Approval by Alex Oa  
Chairman

Signature: 

Date: 17/1/17

### DATA REVIEW ENDORSEMENT

NAME	TITLE	SIGNATURE	DATE
Grevasias Peni	Team Leader - Standards and Materials		6/2/16.

**SPECIFICATION FOR VOCAB: 111086****4. MAKING**

4.1 Each drum shall be clearly marked with the information specified in AS / ANZ 2857 or AS 3983.

**5. MATERIAL SPECIFICATION**

All cables supplied under this order or tender, as the case must comply with the appropriate approval, material specification or standard by the PNG National Institute of Standards and Industrial Technology and must have been issued with a certificate of suitability, from Approvals Section of Consumer Services Branch of PNG Power Limited. A certificate issued by a Supply Authority in Australia, for specific cable item be produced with sample, when approval is sought for use in Papua New Guinea.

Whilst standards are grouped under certain headings, referral to the **Actual Standard** in most cases, call up other applicable standards.

**APPROVAL AND TEST SPECIFICATIONS**

- a AS3147 – 1992 - PVC insulated electric cables for working voltages up to and including 0.6/1KV
- b AS3158 – 1994 - PVC Insulated cables and flexible cables for working voltages up to and including 0.6/1KV
- b I.E.C.287 - 1982 - Calculation of the continuous current rating cable (100% load factor).
- d I.E.C.724 - 1982 - Guide to the short-circuit temperature limits of electric cables with rated voltage not exceeding 0.6/1KV.

**6. INSULATION AND TEMPERATURE LIMIT**

- a. Cables shall have a minimum insulation temperature rating of 75°C or classed as V75 unless otherwise specified.
- b. All cables shall have the correct characteristics for installation under AS3000 – Wiring rules and AS3008 part 1 and 2

**7. HIGH VOLTAGE**

Cables shall be tested under AS1660 – Methods of test for cables and flexible cords (including conductors, insulation and sheath).

- Part 1 - 1993 Test methods for conductors and metallic components
- Part 2 - 1993 Test methods for insulation, extruded semi conductive screens and non-metallic sheaths
- Part 3 - 1993 Electrical Tests.
- Part 4 - 1993 Complete cables flexible cords.

**8. DISTINGUISHING COLOURS OF CABLES**

As per Rule 3.2 of AS3000 – 1991, SAA wiring Rules (PNGS1022).





# MATERIAL SPECIFICATION

VOCAB NUMBER	ITEM DESCRIPTION
111087	CABLE: 30/0.25, 3 CORE DIA.(1.5MM <sup>2</sup> ) FLEXIBLE. PVC INSULATED, 0.6/ 1KV GRADE

## SPECIFICATION DETAILS

1. **GENERAL REQUIREMENT:**
    - 1.1 The cable shall have PNG Power Limited type approval and the approval number must be quoted on the Tender.
    - 1.2 All cables supplied shall comply with the appropriate Australian/ New Zealand Standards as per the attached Addendum I.
    - 1.3 Goods meeting other authoritative standards (such as I.E.C. Publication 228) which ensure an equal or higher quality than the standard stated will also be acceptable but subject to PNG Power Limited type approval.
  2. **SAMPLES**
    - 2.1 PNG Power Ltd may request the submission of samples for approval prior to bulk production.
  3. **PACKING**
    - 3.1 The cables shall be suitably packed in wooden drums having softwood sides and battens. The total weight shall not exceed 900Kg. Preferably drum size to be 0.6m x 1.25m. Drums to be to AS/NZS 2857 – 1986 Timber drums or AS 3983 – 1991 Metal drums, capable of a storage life of four years under tropical conditions.
- **Unit of Measure:** Metre
  - **Rejection:** PNG Power Ltd reserves all rights to reject whole or part of the order not complying with this specification and is not liable for any cost or loss with the return of rejects to the Supplier. Facilitation of Invoice Credit must commence between the supplier and PNG Power Ltd through the process of PNG Power Ltd Discrepancy Report provisions.

**Drawing References:** \_\_\_\_\_ **Manufacturer's Product Code:** \_\_\_\_\_


### STANDARDS COMMITTEE APPROVAL

Approval by Alex Oa  
Chairman

Signature:  .....

Date: 17 / 1 / 17

### DATA REVIEW ENDORSEMENT

NAME	TITLE	SIGNATURE	DATE
Grevasias Peni	Team Leader - Standards and Materials		6/12/16

**SPECIFICATION FOR VOCAB: 111087****4. MAKING**

4.1 Each drum shall be clearly marked with the information specified in AS / ANZ 2857 or AS 3983.

**5. MATERIAL SPECIFICATION**

All cables supplied under this order or tender, as the case must comply with the appropriate approval, material specification or standard by the PNG National Institute of Standards and Industrial Technology and must have been issued with a certificate of suitability, from Approvals Section of Consumer Services Branch of PNG Power Limited. A certificate issued by a Supply Authority in Australia, for specific cable item be produced with sample, when approval is sought for use in Papua New Guinea.

Whilst standards are grouped under certain headings, referral to the **Actual Standard** in most cases, call up other applicable standards.

**APPROVAL AND TEST SPECIFICATIONS**

- a AS3147 – 1992 - PVC insulated electric cables for working voltages up to and including 0.6/1KV
- b AS3158 – 1994 - PVC Insulated cables and flexible cables for working voltages up to and including 0.6/1KV
- b I.E.C.287 - 1982 - Calculation of the continuous current rating cable (100% load factor).
- d I.E.C.724 - 1982 - Guide to the short-circuit temperature limits of electric cables with rated voltage not exceeding 0.6/1KV.

**6. INSULATION AND TEMPERATURE LIMIT**

- a. Cables shall have a minimum insulation temperature rating of 75°C or classed as V75 unless otherwise specified.
- b. All cables shall have the correct characteristics for installation under AS3000 – Wiring rules and AS3008 part 1 and 2

**7. HIGH VOLTAGE**

Cables shall be tested under AS1660 – Methods of test for cables and flexible cords (including conductors, insulation and sheath).

- Part 1 - 1993 Test methods for conductors and metallic components
- Part 2 - 1993 Test methods for insulation, extruded semi conductive screens and non-metallic sheaths
- Part 3 - 1993 Electrical Tests.
- Part 4 - 1993 Complete cables flexible cords.

**8. DISTINGUISHING COLOURS OF CABLES**

As per Rule 3.2 of AS3000 – 1991, SAA wiring Rules (PNGS1022).

# MATERIAL SPECIFICATION

VOCAB NUMBER	ITEM DESCRIPTION
111095	CABLE: 24/0.20, 3 CORE, VRI COTON BRAIDED, FLEXIBLE

## SPECIFICATION DETAILS

**1 GENERAL REQUIREMENT:**

- 1.1 The cable shall have PNG Power Limited type approval and the approval number must be quoted on the Tender.
- 1.2 All cables supplied shall comply with the appropriate Australian/New Zealand Standards as per the attached Addendum I.
- 1.3 Electrical Flexible Cords shall also comply with the Australian Standards 3191 as amended.
- 1.3 Goods meeting other authoritative standards (such as I.E.C. Publication 228) which ensure an equal or higher quality than the standard stated will also be acceptable but subject to PNG Power Limited type approval.

**2. SAMPLES**

- 2.1 PNG Power Ltd may request the submission of samples for approval prior to bulk production.

**3. PACKING**

- 3.1 The cables shall be suitably packed in wooden drums having softwood sides and battens. The total weight shall not exceed 900Kg. Preferably drum size to be 0.6m x 1.25m. Drums to be to AS/NZS 2857 – 1986 Timber drums or AS 3983 – 1991 Metal drums, capable of a storage life of four years under tropical conditions.

- **Unit of Measure:** Metre
- **Rejection:** PNG Power Ltd reserves all rights to reject whole or part of the order not complying with this specification and is not liable for any cost or loss with the return of rejects to the Supplier. Facilitation of Invoice Credit must commence between the supplier and PNG Power Ltd through the process of PNG Power Ltd Discrepancy Report provisions.

*Drawing References:*

*Manufacturer's Product Code:*


### STANDARDS COMMITTEE APPROVAL

Approval by Alex Oa  
Chairman

Signature: 

Date: 17/1/17

### DATA REVIEW ENDORSEMENT

NAME	TITLE	SIGNATURE	DATE
Grevasias Peni	Team Leader - Standards and Materials		6/12/16

**ADDENDUM TO CABLES/MATERIAL SPECIFICATION FOR VOCAB: 111095**
**4. MAKING**

4.1 Each drum shall be clearly marked with the information specified in AS / ANZ 2857 or AS 3983.

**5. MATERIAL SPECIFICATION**

All cables supplied under this order or tender, as the case must comply with the appropriate approval, material specification or standard by the PNG National Institute of Standards and Industrial Technology and must have been issued with a certificate of suitability, from Approvals Section of Consumer Services Branch of PNG Power Limited. A certificate issued by a Supply Authority in Australia, for specific cable item be produced with sample, when approval is sought for use in Papua New Guinea.

Whilst standards are grouped under certain headings, referral to the **Actual Standard** in most cases, call up other applicable standards.

**6. APPROVAL AND TEST SPECIFICATIONS**

- a) 3116 - Elastomer insulated electrical cables and flexible cable for working voltages up to and including 0.6/1KV.
- b) 3147 - PVC Insulated electrical cables and flexible cables for working voltages up to and including 0.6/1KV.
- c) 3155 - Neutral screened cables for working voltages of up to and 0.6/2KV.
- d) 3158 - PVC Insulated cables and flexible cables for working voltages or up to and including 0.6/1KV.
- e) 3166 - PVC insulated cables for electric signs and high voltage luminous discharge tube installations.
- f) 3187 - Mineral – insulated metal – sheathed cables. (The standard is endorsed as NZ Standard.
- g) 3191 - Electric Flexible cords
- h) 3198 - X. L. P. E insulated electric cables for working voltages of up to and including 0.6/1KV. (This standard is endorsed as a NZ Standard).
- i) I.E.C 287 - Calculation of the continuous current ratings of cables (100 per cent load factor)
- j) I.E.C 724 - Guide to the short – circuit temperature limits of electric cables with a rated voltage not exceeding 0.6/1KV.

**7. INSULATION AND TEMPERATURE LIMIT**

- a) 1125 - Conductors in insulated electric cables and flexible cords.
- b) 1178 - Concentric wire neutral XLPE insulated cables for working voltages up to and including 0.6/1KV – V90.
- c) Cables shall have a minimum insulation temperature rating of 75°C or classed as V75 unless otherwise specified.
- d) All cables shall have the correct characteristics for installation under AS3000 – Wiring rules 3008 part 1 and 2.

**ADDENDUM TO CABLES/MATERIAL SPECIFICATION FOR VOCAB: 111095****8. CURRENT RATINGS FOR DISTRIBUTION CABLES:**

Must comply with E.R.A Technology Limited (U.K) report 69-30, from cable manufacturers' specifications and recommendations, based on the International Electrotechnical Commission Publication 287.

- Part 1 - Paper – Insulated Lead – Sheathed Cables
- Part 2 - Paper – Insulated Aluminium Covered Cables
- Part 3 - PVC – Insulated Cables
- Part 5 - Sustained current ratings for armoured cables with thermosetting insulation

**9. HIGH VOLTAGE:**

- a) 1026 Impregnated paper installed cable for Electricity Supply at working voltages up to and including 19/33kV metric units.
- b) 1429 Polymeric insulated cables for Electricity Supply at working voltages 1.9/3.3kV up to and including 19/33kV. (For insulation of LDPE, XLPE, or EPR with or without armour) 1993.
- c) 1660 Methods of test for electric cables and flexible cords, (including conductors, insulation and sheath).
  - Part 1 - 1993 Test methods for conductors and metallic components.
  - Part 2 - 1993 Test methods for insulation, extruded semi conductive screens and non-metallic sheaths.
  - Part 3 - 1993 Electrical Test
  - Part 4 - 1993 Complete cables and flexible cords.

**10. AERIAL CABLES INSULATED:**

- a) 3147 PVC (see approval and test specification)
- b) 3116 Elastomer (see approval and test specification)

**11. HIGH VOLTAGE**

Cables shall be tested under AS1660 – Methods of test for cables and flexible cords (including conductors, insulation and sheath).

**12. CONTROL CABLES:**

- a) 2373 Control cables for Electricity Supply Systems
  - Part 1 – 1995 Multicore Control Cables
  - Part 2 – 1995 Twisted Pair Control Cables

**13. DISTINGUISHING COLOURS OF CABLES:**

As per Rule 3.2 of AS 3000 – 1991. SAA Wiring Rules (PNGS 1022).

**14. HARD DRAWN BARE COPPER:**

- a) 1746 Hard-drawn copper conductors for overhead power transmission purposes. (1991).