

**EPC CONTRACTOR COAL FIRED POWER PLANT 25 MW, 50 MW, 100 MW, 200 MW**

**1. Kontraktor EPC PLTU 25 MW**

<b>No.</b>	<b>Penyedia Jasa</b>
1	ITOCHU Corporation
2	Mitsubishi Corporation
3	PT Inti Karya Persada Teknik (IKPT)
4	PT Poeser Indonesia
5	PT Rekadaya ElektriKa
6	PT Rekayasa Industri
7	PT Wijaya Karya (Persero)
8	Sumitomo Corporation

**2. Kontraktor EPC PLTU 50 MW**

<b>No.</b>	<b>Penyedia Jasa</b>
1	General Electric (Switzerland) GmbH
2	ITOCHU Corporation
3	Mitsubishi Corporation
4	Posco Engineering & Construction
5	PT Inti Karya Persada Teknik (IKPT)
6	PT Pembangunan Perumahan (Persero) Tbk
7	PT Poeser Indonesia
8	PT Rekadaya ElektriKa
9	PT Rekayasa Industri
10	PT Wijaya Karya (Persero)
11	Sumitomo Corporation

**3. Kontraktor EPC PLTU 100 MW**

<b>No.</b>	<b>Penyedia Jasa</b>
1	Doosan Heavy Industries & Construction Co. Ltd
2	General Electric (Switzerland) GmbH
3	ITOCHU Corporation
4	Marubeni Corporation
5	Mitsubishi Corporation
6	Posco Engineering & Construction
7	PT Inti Karya Persada Teknik (IKPT)
8	PT Rekayasa Industri
9	PT Wijaya Karya (Persero)
10	Sumitomo Corporation
11	Tecnimont S.p.A

#### 4. Kontraktor EPC PLTU 200 MW

No.	Penyedia Jasa
1	Doosan Heavy Industries & Construction Co. Ltd
2	General Electric (Switzerland) GmbH
3	ITOCHU Corporation
4	Marubeni Corporation
5	Mitsubishi Corporation
6	Posco Engineering & Construction
7	PT Rekayasa Industri
8	PT Wijaya Karya (Persero)
9	Sumitomo Corporation
10	Tecnimont S.p.A

## MAJOR EQUIPMENT VENDOR COAL FIRED POWER PLANT 50 MW, 100 MW, 200 MW

### 1. CFB Boiler

#### a. 50 MW

No.	Penyedia Jasa
1	Doosan Heavy Industries and Construction Co., Ltd.
2	General Electric (Switzerland) GmbH
3	IHI Corporation
4	thyssenkrupp Industrial Solutions AG - PT thyssenkrupp Industrial Solutions Indonesia
5	Valmet Power Oy - PT Valmet
6	RAFAKO S.A.
7	Sumitomo Heavy Industries., Ltd
8	The Babcock & Wilcox Company

#### b. 100 MW

No.	Penyedia Jasa
1	Doosan Heavy Industries and Construction Co., Ltd.
2	General Electric (Switzerland) GmbH
3	Valmet Power Oy - PT Valmet
4	RAFAKO S.A.
5	Sumitomo Heavy Industries., Ltd
6	The Babcock & Wilcox Company

#### c. 200 MW

No.	Penyedia Jasa
1	Doosan Heavy Industries and Construction Co., Ltd.
2	General Electric (Switzerland) GmbH
3	Valmet Power Oy - PT Valmet
4	RAFAKO S.A.
5	Sumitomo Heavy Industries., Ltd

### 2. PC Boiler

#### a. 50 MW

No.	Penyedia Jasa
1	AC Boilers SpA
2	BHI Co. Ltd.
3	Doosan Heavy Industries and Construction Co., Ltd.
4	General Electric (Switzerland) GmbH
5	IHI Corporation
6	Kawasaki Heavy Industries., Ltd.
7	Mitsubishi Hitachi Power Systems
8	RAFAKO S.A.

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9	Riley Power Inc.
10	The Babcock & Wilcox Company

**b. 100 MW**

No.	Penyedia Jasa
1	AC Boilers SpA
2	BHI Co., Ltd.
3	Doosan Heavy Industries and Construction Co., Ltd.
4	General Electric (Switzerland) GmbH
5	IHI Corporation
6	Kawasaki Heavy Industries., Ltd.
7	RAFAKO S.A.
8	Riley Power Inc.
9	The Babcock & Wilcox Company

**c. 200 MW**

No.	Penyedia Jasa
1	AC Boilers SpA
2	BHI Co., Ltd.
3	Doosan Heavy Industries and Construction Co., Ltd.
4	General Electric (Switzerland) GmbH
5	IHI Corporation
6	RAFAKO S.A.
7	The Babcock & Wilcox Company

**3. Fans**

**a. 50 MW**

No.	Penyedia Jasa
1	Howden Group Ltd.
2	Suewon Poongryuk Machinery Co., Ltd.
3	Tongyang Inc.

**b. 100 MW**

No.	Penyedia Jasa
1	Howden Group Ltd.
2	Suewon Poongryuk Machinery Co., Ltd.
3	Tongyang Inc.

**c. 200 MW**

No.	Penyedia Jasa
1	Howden Group Ltd.
2	Suewon Poongryuk Machinery Co., Ltd.
3	Tongyang Inc.

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#### 4. Boiler Feed Pump (BFP)

##### a. 50 MW

No.	Penyedia Jasa
1	Grupa Powen-Wafapomp S.A.
2	Hyosung Goodsprings INC
3	KSB SE & Co. KGaA - PT KSB Indonesia
4	Nuovo Pignone International s.r.l

##### b. 100 MW

No.	Penyedia Jasa
1	Grupa Powen-Wafapomp S.A.
2	Hyosung Goodsprings INC
3	KSB SE & Co. KGaA - PT KSB Indonesia
4	Nuovo Pignone International s.r.l

##### c. 200 MW

No.	Penyedia Jasa
1	Grupa Powen-Wafapomp S.A.
2	Hyosung Goodsprings INC
3	KSB SE & Co. KGaA - PT KSB Indonesia
4	Nuovo Pignone International s.r.l

#### 5. Circulating Water Pump (CWP)

##### a. 50 MW

No.	Penyedia Jasa
1	Grupa Powen-Wafapomp S.A.
2	Hyosung Goodsprings INC
3	KSB SE & Co. KGaA - PT KSB Indonesia

##### b. 100 MW

No.	Penyedia Jasa
1	Grupa Powen-Wafapomp S.A.
2	Hyosung Goodsprings INC
3	KSB SE & Co. KGaA - PT KSB Indonesia

##### c. 200 MW

No.	Penyedia Jasa
1	Grupa Powen-Wafapomp S.A.
2	Hyosung Goodsprings INC
3	KSB SE & Co. KGaA - PT KSB Indonesia

## 6. Steam Turbine

### a. 50 MW

No.	Penyedia Jasa
1	Doosan Heavy Industries and Construction Co., Ltd.
2	Doosan Skoda Power
3	Franco Tosi Meccanica SpA
4	Fuji Electric Co., Ltd
5	General Electric (Switzerland) GmbH
6	JFE Engineering Corporation
7	Kawasaki Heavy Industries., Ltd.
8	Mitsubishi Hitachi Power Systems
9	MAN Diesel & Turbo SE - PT MAN Diesel & Turbo Indonesia
10	Nuovo Pignone International s.r.l
11	Siemens AG - PT Siemens Indonesia
12	Shin Nippon Machinery Co., Ltd
13	Toshiba Energy Systems & Solution Corporation

### b. 100 MW

No.	Penyedia Jasa
1	Ansaldo Energia S.p.A.
2	Doosan Heavy Industries and Construction Co., Ltd.
3	Doosan Škoda Power (DSPW)
4	Franco Tosi Meccanica SpA
5	MAN Diesel & Turbo SE - PT MAN Diesel & Turbo Indonesia
6	Nuovo Pignone International s.r.l
7	Siemens AG - PT Siemens Indonesia
8	Toshiba Energy Systems & Solution Corporation

### c. 200 MW

No.	Penyedia Jasa
1	Ansaldo Energia S.p.A.
2	Doosan Heavy Industries and Construction Co., Ltd.
3	Doosan Škoda Power (DSPW)
4	Franco Tosi Meccanica SpA
5	General Electric (Switzerland) GmbH
6	Siemens AG - PT Siemens Indonesia
7	Toshiba Energy Systems & Solution Corporation

## 7. Generator

### a. 50 MW

No.	Penyedia Jasa
1	Doosan Heavy Industries and Construction Co., Ltd.
2	Doosan Škoda Power (DSPW)
3	Fuji Electric Co., Ltd
4	General Electric (Switzerland) GmbH
5	Mitsubishi Hitachi Power Systems
6	Siemens AG - PT Siemens Indonesia
7	Toshiba Energy Systems & Solution Corporation

### b. 100 MW

No.	Penyedia Jasa
1	Ansaldo Energia S.p.A.
2	Doosan Heavy Industries and Construction Co., Ltd.
3	Doosan Škoda Power (DSPW)
4	General Electric (Switzerland) GmbH
5	Siemens AG - PT Siemens Indonesia
6	Toshiba Energy Systems & Solution Corporation

### c. 200 MW

No.	Penyedia Jasa
1	Ansaldo Energia S.p.A.
2	Doosan Heavy Industries and Construction Co., Ltd.
3	Doosan Škoda Power (DSPW)
4	General Electric (Switzerland) GmbH
5	Siemens AG - PT Siemens Indonesia
6	Toshiba Energy Systems & Solution Corporation

## 8. Ship Unloader

### a. 50 MW

No.	Penyedia Jasa
1	Doosan Heavy Industries and Construction Co., Ltd.
2	Duro Felguera, S.A.
3	Famur Famak S.A.
4	IHI Transport Machinery Co., Ltd
5	Kawasaki Heavy Industries., Ltd.
6	thyssenkrupp Industrial Solutions AG - PT thyssenkrupp Industrial Solutions Indonesia
7	Sumitomo Heavy Industries Material Handling Systems Co., Ltd.

**b. 100 MW**

No.	Penyedia Jasa
1	Doosan Heavy Industries and Construction Co., Ltd.
2	Duro Felguera, S.A.
3	Famur Famak S.A.
4	IHI Transport Machinery Co., Ltd
5	Kawasaki Heavy Industries., Ltd.
6	Sumitomo Heavy Industries Material Handling Systems Co., Ltd.
7	thyssenkrupp Industrial Solutions AG - PT thyssenkrupp Industrial Solutions Indonesia

**c. 200 MW**

No.	Penyedia Jasa
1	Doosan Heavy Industries and Construction Co., Ltd.
2	Duro Felguera, S.A.
3	Famur Famak S.A.
4	IHI Transport Machinery Co., Ltd
5	Sumitomo Heavy Industries Material Handling Systems Co., Ltd.
6	thyssenkrupp Industrial Solutions AG - PT thyssenkrupp Industrial Solutions Indonesia

**9. Stacker Reclaimer****a. 50 MW**

No.	Penyedia Jasa
1	Famur Famak S.A.
2	Kawasaki Heavy Industries., Ltd.
3	Duro Felguera SA - PT Duro Felguera Indonesia
4	thyssenkrupp Industrial Solutions AG - PT thyssenkrupp Industrial Solutions Indonesia

**b. 100 MW**

No.	Penyedia Jasa
1	Famur Famak S.A.
2	Kawasaki Heavy Industries., Ltd.
3	Duro Felguera SA - PT Duro Felguera Indonesia
4	thyssenkrupp Industrial Solutions AG - PT thyssenkrupp Industrial Solutions Indonesia

**c. 200 MW**

No.	Penyedia Jasa
1	Famur Famak S.A.
2	Kawasaki Heavy Industries., Ltd.
3	Duro Felguera SA - PT Duro Felguera Indonesia
4	thyssenkrupp Industrial Solutions AG - PT thyssenkrupp Industrial Solutions Indonesia



## 10. Coal Conveying System

### a. 50 MW

No.	Penyedia Jasa
1	IHI Transport Machinery Co., Ltd
2	Duro Felguera SA - PT Duro Felguera Indonesia
3	thyssenkrupp Industrial Solutions AG - PT thyssenkrupp Industrial Solutions Indonesia

## 11. Ash Handling

### a. 50 MW

No.	Penyedia Jasa
1	General Electric (Switzerland) GmbH
2	KC Cottrell Co., Ltd.

### b. 100 MW

No.	Penyedia Jasa
1	General Electric (Switzerland) GmbH
2	KC Cottrell Co., Ltd.

### c. 200 MW

No.	Penyedia Jasa
1	General Electric (Switzerland) GmbH
2	KC Cottrell Co., Ltd.

## 12. Distributed Control System (DCS)

No.	Penyedia Jasa
1	Emerson Process Management Asia Pacific Pte Ltd. – PT Control Systems Arena Para Nusa
2	Schneider Electric Industries SAS - PT Schneider Indonesia
3	Yokogawa Electric Corporation - PT Yokogawa Indonesia
4	Siemens AG
5	Valmet Technologies Inc.

## **EPC CONTRACTOR SUBSTATION AIS AND GIS**

### **1. Kontraktor EPC Air Insulated Switchgear (AIS) 70 kV**

<b>No.</b>	<b>Penyedia Jasa</b>
1	PT ABB Sakti Industri
2	PT Citramasjaya Teknikmandiri
3	PT Grid Solutions Indonesia
4	PT Indokomas Buana Perkasa
5	PT Kencana Alam Putra
6	PT Rekadaya ElektriKa
7	PT Siemens Indonesia
8	PT Twink Indonesia
9	PT Wijati Aji

### **2. Kontraktor EPC Air Insulated Switchgear (AIS) 150 kV**

<b>No.</b>	<b>Penyedia Jasa</b>
1	PT ABB Sakti Industri
2	PT Citicon Adhinugraha
3	PT Citramasjaya Teknikmandiri
4	PT Grid Solutions Indonesia
5	PT Indokomas Buana Perkasa
6	PT Kencana Alam Putra
7	PT Multi Fabrindo Gemilang
8	PT Pembangunan Perumahan (Persero) Tbk
9	PT Rekadaya ElektriKa
10	PT Siemens Indonesia
11	PT Twink Indonesia
12	PT Wijati Aji

### **3. Kontraktor EPC Air Insulated Switchgear (AIS) 275 kV**

<b>No.</b>	<b>Penyedia Jasa</b>
1	PT ABB Sakti Industri
2	PT Citicon Adhinugraha
3	PT Citramasjaya Teknikmandiri
4	PT Grid Solutions Indonesia
5	PT Indokomas Buana Perkasa
6	PT Multi Fabrindo Gemilang
7	PT Siemens Indonesia
8	PT Twink Indonesia

### **4. Kontraktor EPC Air Insulated Switchgear (AIS) 500 kV**

<b>No.</b>	<b>Penyedia Jasa</b>
1	PT Citicon Adhinugraha
2	PT Citramasjaya Teknikmandiri
3	PT Grid Solutions Indonesia

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4	PT Indokomas Buana Perkasa
5	PT Multi Fabrindo Gemilang
6	PT Perfect Circle Engineering
7	PT Twink Indonesia

**5. Kontraktor EPC Gas Insulated Switchgear (GIS) 150 kV**

No.	Penyedia Jasa
1	PT ABB Sakti Industri
2	PT Citicon Adhinugraha
3	PT Citramasjaya Teknikmandiri
4	PT Grid Solutions Indonesia
5	PT Indokomas Buana Perkasa
6	PT Kelinci Mas Unggul
7	PT Lumintu Insan Mandiri
8	PT Multi Fabrindo Gemilang
9	PT Perfect Circle Engineering
10	PT Twink Indonesia

**6. Kontraktor EPC Gas Insulated Switchgear (GIS) 275 kV**

No.	Penyedia Jasa
1	PT ABB Sakti Industri
2	PT Citicon Adhinugraha
3	PT Citramasjaya Teknikmandiri
4	PT Grid Solutions Indonesia
5	PT Multi Fabrindo Gemilang
6	PT Perfect Circle Engineering
7	PT Twink Indonesia

**7. Kontraktor EPC Gas Insulated Switchgear (GIS) 500 kV**

No.	Penyedia Jasa
1	PT Citicon Adhinugraha
2	PT Citramasjaya Teknikmandiri
3	PT Grid Solutions Indonesia
4	PT Indokomas Buana Perkasa
5	PT Multi Fabrindo Gemilang
6	PT Perfect Circle Engineering
7	PT Twink Indonesia

**EPC Contractors for Gas Turbine Power Plant and Gas Engine Power Plant  
≤ 25 MW, 25-100 MW, 100-300 MW, and 300 MW**

**1. Kontraktor EPC Gas Turbine Open Cycle for Plant Capacity ≤ 25 MW**

<b>No.</b>	<b>Penyedia Jasa</b>
1	Acciona Industrial S.A.
2	Black & Veatch International Company
3	GAMA Güç Sistemleri Mühendislik ve Taahhüt A.Ş.
4	IHI Corporation
5	Initec Energia S.A.
6	ITOCHU Corporation
7	KEPCO Engineering & Construction Company Inc.
8	Marubeni Corporation
9	Metka Industrial – Construction S.A.
10	Mitsubishi Corporation
11	Mitsubishi Hitachi Power System, Ltd.
12	Posco International Corporation
13	PT Indoturbine
14	PT Inti Karya Persada Teknik
15	PT Poeser Indonesia
16	PT PP (Persero) Tbk
17	PT Rekayasa Industri
18	PT Tripatra Engineers and Constructors
19	PT Wijaya Karya (Persero) Tbk
20	Siemens AG
21	TSK Electronica Y Electricidad, S.A

**2. Kontraktor EPC Gas Turbine Open Cycle for Plant Capacity > 25 - 100 MW**

<b>No.</b>	<b>Penyedia Jasa</b>
1	Acciona Industrial S.A.
2	Ansaldo Energia S.p.A
3	Black & Veatch International Company
4	GAMA Güç Sistemleri Mühendislik ve Taahhüt A.Ş.
5	IHI Corporation
6	Initec Energia S.A.
7	ITOCHU Corporation
8	KEPCO Engineering & Construction Company Inc.
9	Lotte Engineering & Construction Co.,Ltd.
10	Marubeni Corporation
11	Metka Industrial – Construction S.A.
12	Mitsubishi Corporation
13	Mitsubishi Hitachi Power System, Ltd.
14	Posco International Corporation
15	PT Inti Karya Persada Teknik
16	PT Poeser Indonesia
17	PT PP (Persero) Tbk
18	PT Rekadaya Elekrika
19	PT Rekayasa Industri
20	PT Tripatra Engineers and Constructors

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21	PT Wijaya Karya (Persero) Tbk
22	Siemens AG
23	Technimont S.p.A
24	Toyo Engineering Corporation
25	TSK Electronica Y Electricidad, S.A

### 3. Kontraktor EPC Gas Turbine Open Cycle for Plant Capacity > 100 - 300 MW

No.	Penyedia Jasa
1	Ansaldo Energia S.p.A
2	Black & Veatch International Company
3	Cobra Instalaciones y Servicios S.A.
4	Daewoo Engineering & Construction Co., Ltd.
5	Fluor Enterprises Inc
6	GAMA Güç Sistemleri Mühendislik ve Taahhüt A.Ş.
7	GE Global Parts and Products GmbH
8	GS Engineering & Construction Corp.
9	Hyundai Engineering Co., Ltd.
10	IHI Corporation
11	Initec Energia S.A.
12	ITOCHU Corporation
13	KEPCO Engineering & Construction Company Inc.
14	Lotte Engineering & Construction Co.,Ltd.
15	Marubeni Corporation
16	Metka Industrial – Construction S.A.
17	Mitsubishi Corporation
18	Mitsubishi Hitachi Power System, Ltd.
19	Posco International Corporation
20	Posco Engineering & Construction Co.,Ltd.
21	PT Inti Karya Persada Teknik
22	PT Poeser Indonesia
23	PT PP (Persero) Tbk
24	PT Rekadaya ElektriKA
25	PT ReKayasa Industri
26	PT Tripatra Engineers and Constructors
27	PT Wijaya Karya (Persero) Tbk
28	Samsung C&T Corporation
29	Siemens AG
30	Sumitomo Corporation
31	Technimont S.p.A
32	Tecnicas Reunidas S.A.
33	TSK Electronica Y Electricidad, S.A

### 4. Kontraktor EPC Gas Turbine Open Cycle for Plant Capacity > 300 MW

No.	Penyedia Jasa
1	Ansaldo Energia S.p.A
2	Black & Veatch International Company
3	Cobra Instalaciones y Servicios S.A.
4	Daewoo Engineering & Construction Co., Ltd.
5	Fluor Enterprises Inc

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6	GAMA Güç Sistemleri Mühendislik ve Taahhüt A.Ş.
7	GE Global Parts and Products GmbH
8	GS Engineering & Construction Corp.
9	Hyundai Engineering Co., Ltd.
10	Initec Energia S.A.
11	ITOCHU Corporation
12	Marubeni Corporation
13	Metka Industrial – Construction S.A.
14	Mitsubishi Corporation
15	Mitsubishi Hitachi Power System, Ltd.
16	Posco Engineering & Construction Co.,Ltd.
17	PT Inti Karya Persada Teknik
18	PT PP (Persero) Tbk
19	PT Rekayasa Industri
20	PT Wijaya Karya (Persero) Tbk
21	Samsung C&T Corporation
22	Siemens AG
23	Sumitomo Corporation
24	Technimont S.p.A
25	TSK Electronica Y Electricidad, S.A

**5. Kontraktor EPC Gas Turbine Combined Cycle for Plant Capacity > 100 - 300 MW**

No.	Penyedia Jasa
1	Ansaldo Energia S.p.A
2	Black & Veatch International Company
3	Cobra Instalaciones y Servicios S.A.
4	Daewoo Engineering & Construction Co., Ltd.
5	Doosan Heavy Industries and Construction Co., Ltd.
6	Fluor Enterprises Inc
7	GAMA Güç Sistemleri Mühendislik ve Taahhüt A.Ş.
8	GE Global Parts and Products GmbH
9	GS Engineering & Construction Corp.
10	Hyundai Engineering Co., Ltd.
11	IHI Corporation
12	Initec Energia S.A.
13	ITOCHU Corporation
14	KEPCO Engineering & Construction Company Inc.
15	Lotte Engineering & Construction Co., Ltd.
16	Marubeni Corporation
17	Metka Industrial – Construction S.A.
18	Mitsubishi Corporation
19	Mitsubishi Hitachi Power System, Ltd.
20	Posco International Corporation
21	Posco Engineering & Construction Co.,Ltd.
22	PT Inti Karya Persada Teknik
23	PT Poeser Indonesia
24	PT PP (Persero) Tbk
25	PT Rekadaya Elekrika

26	PT Rekayasa Industri
27	PT Tripatra Engineers and Constructors
28	PT Wijaya Karya (Persero) Tbk
29	Samsung C&T Corporation
30	Siemens AG
31	Sumitomo Corporation
32	Technimont S.p.A
33	Tecnicas Reunidas S.A.
34	Toyo Engineering Corporation
35	TSK Electronica Y Electricidad, S.A

**6. Kontraktor EPC Gas Turbine Combined Cycle for Plant Capacity > 300 MW**

No.	Penyedia Jasa
1	Ansaldo Energia S.p.A
2	Black & Veatch International Company
3	Cobra Instalaciones y Servicios S.A.
4	Daewoo Engineering & Construction Co., Ltd.
5	Doosan Heavy Industries and Construction Co., Ltd.
6	Fluor Enterprises Inc
7	GAMA Güç Sistemleri Mühendislik ve Taahhüt A.Ş.
8	GE Global Parts and Products GmbH
9	GS Engineering & Construction Corp.
10	Hyundai Engineering Co., Ltd.
11	Initec Energia S.A.
12	ITOCHU Corporation
13	KEPCO Engineering & Construction Company Inc.
14	Marubeni Corporation
15	Metka Industrial – Construction S.A.
16	Mitsubishi Corporation
17	Mitsubishi Hitachi Power System, Ltd.
18	Posco Engineering & Construction Co.,Ltd.
19	PT Inti Karya Persada Teknik
20	PT PP (Persero) Tbk
21	PT Rekayasa Industri
22	PT Wijaya Karya (Persero) Tbk
23	Samsung C&T Corporation
24	Siemens AG
25	Sumitomo Corporation
26	Technimont S.p.A
27	Tecnicas Reunidas S.A.
28	TSK Electronica Y Electricidad, S.A

**7. Kontraktor EPC Gas Engine Open Cycle for Plant Capacity ≤ 25 MW**

No.	Penyedia Jasa
1	Acciona Industrial S.A.
2	Black & Veatch International Company
3	Burmeister & Wain Scandinavian Contractor A/S
4	GAMA Güç Sistemleri Mühendislik ve Taahhüt A.Ş.
5	Initec Energia S.A.

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6	ITOCHU Corporation
7	KEPCO Engineering & Construction Company Inc.
8	MAN Energy Solutions SE
9	Metka Industrial – Construction S.A.
10	Mitsubishi Corporation
11	Posco International Corporation
12	PT Inti Karya Persada Teknik
13	PT Poeser Indonesia
14	PT PP (Persero) Tbk
15	PT Rekayasa Industri
16	PT Tripatra Engineers and Constructors
17	PT Wijaya Karya (Persero) Tbk
18	TSK Electronica Y Electricidad, S.A
19	Wartsila Oy

**8. Kontraktor EPC Gas Engine Open Cycle for Plant Capacity > 25 - 100 MW**

No.	Penyedia Jasa
1	Acciona Industrial S.A.
2	Black & Veatch International Company
3	Burmeister & Wain Scandinavian Contractor A/S
4	GAMA Güç Sistemleri Mühendislik ve Taahhüt A.Ş.
5	Initec Energia S.A.
6	ITOCHU Corporation
7	KEPCO Engineering & Construction Company Inc.
8	MAN Energy Solutions SE
9	Marubeni Corporation
10	Metka Industrial – Construction S.A.
11	Mitsubishi Corporation
12	Posco International Corporation
13	PT Inti Karya Persada Teknik
14	PT Poeser Indonesia
15	PT PP (Persero) Tbk
16	PT Rekadaya Elekrika
17	PT Rekayasa Industri
18	PT Tripatra Engineers and Constructors
19	PT Wijaya Karya (Persero) Tbk
20	Toyo Engineering Corporation
21	TSK Electronica Y Electricidad, S.A
22	Wartsila Oy

**9. Kontraktor EPC Gas Engine Open Cycle for Plant Capacity > 100 - 300 MW**

No.	Penyedia Jasa
1	Black & Veatch International Company
2	GAMA Güç Sistemleri Mühendislik ve Taahhüt A.Ş.
3	Initec Energia S.A.
4	ITOCHU Corporation
5	KEPCO Engineering & Construction Company Inc.
6	Lotte Engineering & Construction Co.,Ltd.
7	MAN Energy Solutions SE

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8	Marubeni Corporation
9	Metka Industrial – Construction S.A.
10	Mitsubishi Corporation
11	Posco International Corporation
12	Posco Engineering & Construction Co.,Ltd.
13	PT Inti Karya Persada Teknik
14	PT PP (Persero) Tbk
15	PT Rekadaya ElektriKa
16	PT Rekayasa Industri
17	PT Tripatra Engineers and Constructors
18	PT Wijaya Karya (Persero) Tbk
19	Samsung C&T Corporation
20	Sumitomo Corporation
21	Tecnicas Reunidas S.A.
22	TSK Electronica Y Electricidad, S.A
23	Wartsila Oy

**10. Kontraktor EPC Gas Engine Open Cycle for Plant Capacity > 300 MW**

No.	Penyedia Jasa
1	Black & Veatch International Company
2	GAMA Güç Sistemleri Mühendislik ve Taahhüt A.Ş.
3	Hyundai Engineering & Construction Co., Ltd.
4	Initec Energia S.A.
5	ITOCHU Corporation
6	Marubeni Corporation
7	Metka Industrial – Construction S.A.
8	Mitsubishi Corporation
9	Posco Engineering & Construction Co.,Ltd.
10	PT Inti Karya Persada Teknik
11	PT PP (Persero) Tbk
12	PT Rekayasa Industri
13	PT Wijaya Karya (Persero) Tbk
14	Samsung C&T Corporation
15	Sumitomo Corporation
16	TSK Electronica Y Electricidad, S.A

**11. Kontraktor EPC Gas Engine Combined Cycle for Plant Capacity > 100 - 300 MW**

No.	Penyedia Jasa
1	Black & Veatch International Company
2	GAMA Güç Sistemleri Mühendislik ve Taahhüt A.Ş.
3	Initec Energia S.A.
4	ITOCHU Corporation
5	KEPCO Engineering & Construction Company Inc.
6	Lotte Engineering & Construction Co.,Ltd.
7	MAN Energy Solutions SE
8	Marubeni Corporation
9	Metka Industrial – Construction S.A.
10	Mitsubishi Corporation
11	Posco International Corporation

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12	Posco Engineering & Construction Co.,Ltd.
13	PT Inti Karya Persada Teknik
14	PT Poeser Indonesia
15	PT PP (Persero) Tbk
16	PT Rekadaya ElektriKa
17	PT Rekayasa Industri
18	PT Tripatra Engineers and Constructors
19	PT Wijaya Karya (Persero) Tbk
20	Samsung C&T Corporation
21	Sumitomo Corporation
22	Tecnicas Reunidas S.A.
23	Toyo Engineering Corporation
24	TSK Electronica Y Electricidad, S.A
25	Wartsila Oy

**12. Kontraktor EPC Gas Engine Combined Cycle for Plant Capacity > 300 MW**

No.	Penyedia Jasa
1	Black & Veatch International Company
2	GAMA Güç Sistemleri Mühendislik ve Taahhüt A.Ş.
3	Hyundai Engineering & Construction Co., Ltd.
4	Initec Energia S.A.
5	ITOCHU Corporation
6	KEPCO Engineering & Construction Company Inc.
7	Marubeni Corporation
8	Metka Industrial – Construction S.A.
9	Mitsubishi Corporation
10	Posco International Corporation
11	Posco Engineering & Construction Co.,Ltd.
12	PT Inti Karya Persada Teknik
13	PT PP (Persero) Tbk
14	PT Rekayasa Industri
15	PT Wijaya Karya (Persero) Tbk
16	Samsung C&T Corporation
17	Sumitomo Corporation
18	Tecnicas Reunidas S.A.
19	TSK Electronica Y Electricidad, S.A

## MAJOR EQUIPMENT VENDOR AIS AND GIS 275 kV, 500 kV

### 1. Circuit Breaker 275 kV

No.	Penyedia Barang
1	PT Grid Solutions Indonesia

### 2. Circuit Breaker 500 kV

No.	Penyedia Barang
1	PT Grid Solutions Indonesia

### 3. Current Transformer 275 kV

No.	Penyedia Barang
1	PT Grid Solutions Indonesia

### 4. Current Transformer 500 kV

No.	Penyedia Barang
1	Electrotecnica Artech Hermanos SL.
2	PT Grid Solutions Indonesia
3	PT Siemens Indonesia

### 5. Voltage Transformer 275 kV

No.	Penyedia Barang

### 6. Voltage Transformer 500 kV

No.	Penyedia Barang
1	PT Grid Solutions Indonesia
2	PT Siemens Indonesia

### 7. Disconnecting Switch 275 kV

No.	Penyedia Barang
1	PT Grid Solutions Indonesia

### 8. Disconnecting Switch 500 kV

No.	Penyedia Barang
1	PT Grid Solutions Indonesia

### 9. Lightning Arrester 275 kV

No.	Penyedia Barang

### 10. Lightning Arrester 500 kV

No.	Penyedia Barang
1	PT Siemens Indonesia

### 11. GIS 275 kV

No.	Penyedia Barang
1	PT Grid Solutions Indonesia

### 12. GIS 500 kV

No.	Penyedia Barang
1	Hyundai Electric and Energy Systems Co., Ltd.
2	PT Grid Solutions Indonesia
3	PT Hitachi Power Systems Indonesia

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## SPECIFIC EQUIPMENT VENDOR THERMAL POWER PLANT

### 1. Heat Recovery Steam Generator (HRSG)

#### a. HRSG ≤ 100 MW

No.	Penyedia Jasa
1	AC Boilers SpA
2	Amec Foster Wheeler Energía SLU
3	BHI Co., Ltd.
4	GE Power Systems Korea Co., Ltd.
5	IHI Corporation
6	Siemens Heat Transfer Technology B.V.
7	Vogt Power International Inc

#### b. HRSG > 100 MW

No.	Penyedia Jasa
1	AC Boilers SpA
2	Amec Foster Wheeler Energía SLU
3	BHI Co., Ltd.
4	GE Power Systems Korea Co., Ltd.
5	IHI Corporation
6	Siemens Heat Transfer Technology B.V.
7	Vogt Power International Inc

### 2. Emission Control Equipment

#### a. Flue Gas Desulphurization

No.	Penyedia Jasa
1	Doosan Heavy Industries and Construction Co., Ltd.
2	KC Cottrell Co., Ltd.
3	Mitsubishi Hitachi Power System, Ltd.
4	The Babcock & Wilcox Company

#### b. Selective Catalytic Reduction

No.	Penyedia Jasa
1	Doosan Heavy Industries and Construction Co., Ltd.
2	KC Cottrell Co., Ltd.
3	Mitsubishi Hitachi Power System, Ltd.

### 3. Closed Cooling System

#### a. Cooling Tower

No.	Penyedia Jasa
1	PT Hamon Indonesia
2	The Babcock & Wilcox Company

#### 4. Electrostatic Precipitator / Baghouse

##### a. Electrostatic Precipitator

No.	Penyedia Jasa
1	Amec Foster Wheeler Energía SLU
2	KC Cottrell Co., Ltd.
3	Mitsubishi Hitachi Power System, Ltd.
4	The Babcock & Wilcox Company

##### b. Baghouse

No.	Penyedia Jasa
1	Amec Foster Wheeler Energía SLU
2	The Babcock & Wilcox Company

**DPT SALURAN UDARA TEGANGAN TINGGI (SUTT) KORPORAT**

SUTT					
No	PERUSAHAAN	GRADE	No	PERUSAHAAN	GRADE
	TIER 1			TIER 2	
				PT ARCA ENERGI	BBC2
1	PT BANGUN PRIMA SEMESTA	BAB1	1	PT AYAMA CAHAYA MANDIRI	ABC2
2	PT BERCA BUANA SAKTI	BAB1	2	PT BANDA KARYA ABADI	BBC2
3	PT BUKAKA TEKNIK UTAMA TBK	AAA1	3	PT BARUGA ASRINUSA DEVELOPMENT	BBA2
4	PT CENTRA MULTI ELEKTRINDO	BAA2	4	PT BISETTA	BBC2
5	PT CITACONTRAC	BAB1	5	PT BUGAK BRAWANG CEMERLANG	BAA3
6	PT CITICON ADHINUGRAHA	BAA2	6	PT CHRISTI MANUNGGAL	AAC2
7	PT HASTA PRAJATAMA	BAA1	7	PT CITRA BAKTI PERSADA	BAC2
8	PT HORAS BANGUN PERSADA	BAB2	8	PT CITRAMASJAYA TEKNIKMANDIRI	BAA1
9	PT INDISI	AAA1	9	PT DELTA SARANA ENGINEERING	BA*B1
10	PT KARYA MITRA NUGRAHA	AAA1	10	PT FLAMBOYANT HUMA ARTHA	BAA1
11	PT KELINCI MAS UNGGUL	BAB2	11	PT HASTA KARYA PERDANA	AAA3
12	PT LEKTRIKA KARYATAMA	AAA1	12	PT INDO RAJA TOWER	BBC2
13	PT MEDAN SMART JAYA	AAA2	13	PT INDOKARYA ELEKTRIK MANDIRI	BCC2
14	PT MULTI FABRINDO GEMILANG	BAA1	14	PT INTAN MUFAKAT RAYA	BBA1
15	PT REKADAYA ELEKTRIKA	AAA1	15	PT ISPERIAL TUNGGAL CONTRACTOR	BBC2
16	PT SANGKAN JAYA	BAA1	16	PT KEMBAR ABADI PRIMA	ABB1
17	PT WASKITA KARYA	BAA2	17	PT KENCANA ALAM PUTRA	AAB3
18	PT WISMA SARANA TEKNIK	BAB2	18	PT MEGARINDO POWER	BAC2
			19	PT MENARA INDRA UTAMA	ABB2
			20	PT PERFECT CIRCLE ENGINEERING	BBA1
			21	PT PRIMA POWER NUSANTARA	BAC1
			22	PT SAPTA GUNA UTAMA	BBB2
			23	PT TINA KANA	BBA2

**DPT SALURAN UDARA TEGANGAN EKSTRA TINGGI (SUTET) KORPORAT**

SUTET					
No	PERUSAHAAN	GRADE	No	PERUSAHAAN	GRADE
	TIER 1			TIER 2	
1	PT BERCA BUANA SAKTI	BAB2	1	PT AYAMA CAHAYA MANDIRI	ABC3
2	PT HORAS BANGUN PERSADA	BAB2	2	PT BANGUN PRIMA SEMESTA	BAB3
3	PT KARYA MITRA NUGRAHA	AAA2	3	PT BARUGA ASRINUSA DEVELOPMENT	BBA3
4	PT KELINCI MAS UNGGUL	BAB2	4	PT BISETTA	BBC2
5	PT LEKTRIKA KARYATAMA	AAA2	5	PT BUGAK BRAWANG CEMERLANG	BAA3
6	PT MEDAN SMART JAYA	AAA2	6	PT CENTRA MULTI ELEKTRINDO	BAA2
7	PT MULTI FABRINDO GEMILANG	BAA2	7	PT CHRISTI MANUNGGAL	AAC3
8	PT REKADAYA ELEKTRIKA	AAA1	8	PT CITRAMASJAYA TEKNIKMANDIRI	BAA2
9	PT WISMA SARANA TEKNIK	BAB2	9	PT FLAMBOYANT HUMA ARTHA	BAA1
			10	PT INDO RAJA TOWER	BBC3
			11	PT INTAN MUFAKAT RAYA	BBA1
			12	PT MENARA INDRA UTAMA	ABB3
			13	PT PERFECT CIRCLE ENGINEERING	BBA3
			14	PT SAPTA GUNA UTAMA	BBB3
			15	PT WASKITA KARYA	BAA3

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## DAFTAR PENYEDIA TERSELEKSI (DPT) POWER TRANSFORMER COMPONENT VENDORS

### 1. Bushing

No.	Penyedia Barang	Grup	Proposed Type Designation
1	Grid Solution SpA	- Bushing 72.5 kV - Bushing 170 kV	- PNR 72.5 - PNR 170
2	Siemens AG EM HP BIC	- Bushing 72.5 kV - Bushing 170 kV	- STARIP 73 (HSP) - STARTP 170 (HSP)
3	PT ABB Sakti Industri	Bushing 12 kV, 24 kV, 36 kV Non - Condenser	- Porcelain Bushing (DIN Standard) - Porcelain Bushing (EN Standard)
		RIP Bushing 52 kV	- Micafil RTKF 52-250 - ABB Component GSA
		RIP Bushing 72.5 V	- Micafil RTKF 72.5-350 - ABB Component GSA
		RIP Bushing 123 kV	- Micafil RTKF 123-500 - ABB Component GSA
		RIP Bushing 170 kV	- Micafil RTKF 170-750 - ABB Component GSA
4	PT Reinhausen Indonesia	RIP Bushing 300 V	- Micafil RTKF 300-1175 - ABB Component GSA
		RIP Bushing 500 kV	- Micafil RTKF 550-1800 - ABB Component GSA
		- Bushing 12 kV - Bushing 24 kV - Bushing 36 kV	Cedaspe type LV Porcelain Bushing

### 2. Buchholz Relay

No.	Penyedia Barang	Proposed Type Designation
1	PT ABB Sakti Industri	Comem BS, C1, NF
2	Taijin Ind Co., Ltd.	T0602, T0603, T0604(GRD), T0605 (2"+GRD), T0603 (3"+GRD)

### 3. Pressure Relief Device

No.	Penyedia Barang	Proposed Type Designation
1	PT ABB Sakti Industri	Comem T
2	PT Reinhausen Indonesia	Messko GmbH type Mprec
3	Qualitrol Company LLC	LPRD 208 Series
4	Taijin Ind Co., Ltd.	T0501/0502, T0503/0504, T0506/0510 (Air vent type). T0521 – 0524, T0401 - 0403

### 4. Dehydrating Breather

No	Penyedia Barang	Proposed Type Designation
1	PT ABB Sakti Industri	Comem SDB
2	PT Reinhausen Indonesia	MR type M – Trab (Maintenance Free Breather
3	Taijin Ind Co., Ltd.	T0101 (small), T0162/0163/0165(200,500,1000 cc), T0112/0113/0113/0118, T0167K/E0105/T0120,1,2.

### 5. Winding / Oil Temperature Indicator

No	Penyedia Barang	Proposed Type Designation
1	PT ABB Sakti Industri	Comem WT1
2	PT Reinhausen Indonesia	Messko GmbH type MT – ST160 SK (OTI); MT ST160 WR (WTI)
3	Qualitrol Company LLC	AKIV WTI Series 35/ AKM OTI Series 34

### 6. Conservator Oil Level / Indicator

No	Penyedia Barang	Proposed Type Designation
1	PT Reinhausen Indonesia	Messko GmbH type MTO-STF
2	Qualitrol Company LLC	LLG 032 (radial float)
3	Taijin Ind Co., Ltd.	T0285, T0217, T0203/0204/0205, T0206, T0208, T0271, T0276, T0212/0281, T0213/0215/0231/0280

## 7. Cooling Fan

No	Penyedia Barang	Proposed Type Designation
1	Ziehl – Abegg SEA Pte. Ltd.	- FC100 - ZN050 - FN080
2	Taijin Ind Co., Ltd.	- T2106, 2143 - T2127, 28, 29, 36, 37, 48, 64, 67, 68, 41 - T2151
3	ebm-papst SEA Pte, Ltd.	- W8D800-CJ01-80 - WZD800-CM03-80 - WZD800-CM07-84 - W8D800-CJ01-80 - WZD800-CM03-80 - WZD800-CM07-84 - W3G990-CU28-80 - W3G990-CD05-80

## 8. Copper Wire

No	Penyedia Barang	Proposed Type Designation
1	ASTA Conductors Co., Ltd	- CTC (Continuously Transposed Conductor) - PICC (Paper Insulated Copper Conductor)
2	Shenyang Hongyuan Magnet Wire Co., Ltd	- CTC (Continuously Transposed Conductor) - PICC (Paper Insulated Copper Conductor)
3	Tianjin Jing Wei Electric Wire Co., Ltd	- CTC (Continuously Transposed Conductor) - PICC (Paper Insulated Copper Conductor)
4	Sam Dong Co., Ltd.	CT; PCW; ENAMEL

## 9. Insulating Oil

No	Penyedia Barang	Proposed Type Designation
1	Apar Industries Ltd	POWEROIL TO 1020 60 U
2	PT Ergon Oil Indonesia	HyVolt 1
3	PT Nynas Indonesia	Nytro Libra

## 10. Insulation Paper

No.	Penyedia Barang	Proposed Type Designation
1	KREMPEL GmbH	Presspaper – PSP3055
2	PT Transformer Insulation Asia	Ranprex Series
3	Pucaro Elektro-Isolierstoffe GmbH	Elboard HO Elboard N/ZF PUCARO Presspaper Rigid Laminates
4	WEIDMANN Systems Int. Ltd	TI, TIII, TIV, TIV Laminated

## 11. Transformer Board

No.	Penyedia Barang	Proposed Type Designation
1	ABB Fingholm AB	Fingholm Elboard
2	Changzhou Yingzhong Electrical Co., Ltd.	Max Size is 6000x3000 IEC 60641-3-1 , DP Value is 1200 - 1500
3	Deutsche Holzveredelung Schmeing GmbH & Co.KG	Dehonit B 895-8; C2R Dehonit B 825-8; C4R Dehonit B 885-8; P2R Dehonit B 825-8; P4R Dehonit B 725-8; T4R Dehonit B 795-8; T2R
4	KREMPEL GmbH	Power AK - PSP3052 Pressboard - PSP3050 Pressboard – PSP3051
5	PT Transformer Insulation Asia	Ranprex Series
6	Pucaro Elektro-Isolierstoffe GmbH	Elboard HO Elboard N/ZF PUCARO Presspaper



		Rigid Laminates
7	Röchling Engineering Plastics SE & Co KG	Laminated compressed wood Laminated pressboard
8	WEIDMANN Systems Int. Ltd	TI, TII, TIV, TIV Laminated

### 12. On Load Tap Changer

No.	Penyedia Barang	Proposed Type Designation
1	PT ABB Sakti Industri	VUCG
2	PT Reinhausen Indonesia	MR Vacuum Type

### 13. Silicon Steel

No.	Penyedia Barang	Proposed Type Designation
1	PT JFE Shoji Steel Indonesia	JFE G Core
2	Posco Daewoo Corp. TMC Division	Posco Steel CTL Lamination
3	PT Posco Indonesia Inti	Grain Oriented
4	Thyssenkrupp Electrical Steel GmbH	Grain Oriented Electrical Steel Powercore®