



National Electrification Administration

"The 1st Performance Governance System – Institutionalized National Government Agency"
"Energizing the Countryside, Electrifying the Future"

2ND MANUFACTURERS/SUPPLIERS FORUM

*"Ensuring Market Readiness
to Light up the Sitios"*

November 13, 2012
Rodriguez Sports Center, Quezon City



National Electrification Administration

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2012 Material Requirements

SUMMARY OF BILL OF MATERIALS (Php M)

DESCRIPTION	2012	2013
POLES	925.00	1,507.34
CONDUCTORS	496.36	730.97
TRANSFORMERS	294.79	356.33
KWH METERS	183.44	225.93
HARDWARES	199.35	279.13
HOUSEWIRING MATERIALS	338.00	491.00
TOTAL	2,436.94	3,590.70

ESTIMATED COST OF 1KM OF SINGLE PHASE LINE

Details	Cost (Php)
I. Material Requirements	
a. 18 Poles (60 meters span), steel, 35 footer	234,697.32
b. 1km conductor (Primary, 2/0)	44,482.00
c. 1km conductor (Neutral, 1/0)	41,593.20
d. 200 meters conductor (Secondary, 1/0)	
e. 1-15/25kva transformer	59,638.33
f. Hardwares, grounding materials, insulators etc.	31,905.54
g. 30 housewiring, 600 meter service drop wire, 30 kwh meter	102,175.50
II. Labor Cost	95,833.80
III. Contingency	24,021.67
Total	634,347.36

Targets : 4,487 Sitios
Period of Implementation : January – December 2012

Material Description	Requirements		Unit Cost	Extended Cost (PhpM)
	SEP	TOTAL		
I. Poles				
a. 30 Footer	59,087 Poles	59,087 Poles	10,204	603.00
b. 35 Footer	25,323 Poles	25,323 Poles	12,716	322.00
II. Conductor				
a. 1/0 ACSR	6,872 Kms.	6,872 Kms.	30.14	207.12
b. #2 ACSR	6,872 Kms.	6,872 Kms.	21.32	146.51
c. #2 Duplex Wire	6,872 Kms.	6,872 Kms.	20.77	142.73
III. Transformer				
a. 15 KVA	2,689 Units	2,689 Units	60,595	162.04
b. 25 KVA	1,792 Units	1,792 Units	74,081	132.75
IV. Kwh Meters	224,100 Units	224,100 Units	818.57	183.44

V. HARDWARES

Particular	Quantity		Unit Cost	Extended Cost (PhpM)
	SEP	TOTAL		
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	36,000 pieces	36,000 pieces	108.29	3.89
Bolt, Double Upset, 5/8" X 10"	108,000 pieces	108,000 pieces	87.24	9.42
Bolt, Oval Eye, 5/8" X 9"	60,000 pieces	60,000 pieces	83.45	5.00
Bolt, Oval Eye, 5/8" X 10"	72,000 pieces	72,000 pieces	92.61	6.66
Bolt, Machine, 5/8" X 8"	144,000 pieces	144,000 pieces	32.84	4.73
Bolt, Machine, 5/8" X 10"	36,000 pieces	36,000 pieces	41.399	1.51
Bolt, Machine, 5/8" X 12"	24,000 pieces	24,000 pieces	42.31	1.01
Bolt, Single Upset, 5/8" X 8"	54,000 pieces	54,000 pieces	71.50	3.86
Bracket, Clevis Deadend Without Spool	36,000 pieces	36,000 pieces	89.41	3.21
Clamp, Anchor Rod Bonding, Single Eye	36,000 pieces	36,000 pieces	39.73	1.43
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel	72,000 pieces	72,000 pieces	145.31	10.46
Clevis, Secondary Swinging Without Spool	108,000 pieces	108,000 pieces	68.76	7.42
Connector, Compression, #6 - #1/0 ACSR Run To #6 -#2	36,000 pieces	36,000 pieces	39.35	1.42

V. HARDWARES (contd.)

Particular	Quantity		Unit Cost	Extended Cost (PhpM)
	SEP	TOTAL		
Connector, Ground Rod (Clamp) For 5/8" Steel Rod	18,000 pieces	18,000 pieces	19.41	0.34
Cutout and Arrester Combination	6,000 pieces	6,000 pieces	4,674.00	28.04
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5	84,000 pieces	84,000 pieces	176.60	14.83
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2	222,000 pieces	222,000 pieces	16.33	3.62
Insulator, Spool, 3", ANSI, Class 53 - 4	84,000 pieces	84,000 pieces	31.43	2.64
Insulator, Suspension, 6", Clevis Type	72,000 pieces	72,000 pieces	210.09	15.12
Pin, Pole Top, Channel, 1" Thread, 20" Long	84,000 pieces	84,000 pieces	147.13	12.35
Rod, Anchor, Threaded, Single Eye, 5/8" X 7"	36,000 pieces	36,000 pieces	332.39	11.96
Rod, Ground Steel, Galvanized, 5/8" X 10'	18,000 pieces	18,000 pieces	385.89	6.94
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole	486,000 pieces	486,000 pieces	13.08	6.35
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole	36,000 pieces	36,000 pieces	21.45	0.77
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG	180,000 pieces	180,000 pieces	5.57	1.00
Wire, Guy, Steel, 3/8", 7 Strand	1,800,000 pieces	1,800,000 pieces	19.65	35.37

VI. HOUSEWIRING MATERIALS

Particular	Quantity	
	SEP	TOTAL
Safety Switch (30 Amps.)	222,350 Set	222,350 Set
PDX Wire # 8	1,500 Kms.	1,500 Kms.
PDX Wire # 12	3,000 Kms.	3,000 Kms.
PDX Wire # 14	3,000 Kms.	3,000 Kms.
Convenience Outlet (2 Gang)	300,000 Set	300,000 Set
Receptacle	600,000 Pieces	600,000 Pieces
Tumbler Switch	600,000 Pieces	600,000 Pieces
Staple Wire	9,000,000 Pieces	9,000,000 Pieces
Electrical Tape (Big)	300,000 Pieces	300,000 Pieces
Junction Box	600,000 Pieces	600,000 Pieces
CFL Bulb (15W)	600,000 Pieces	600,000 Pieces



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2013 Material Requirements

Targets : **5,000 Sitios**
600 Barangays
Period of Implementation : **January – December 2013**

Material Description	Requirements			Unit Cost	Extended Cost (PhpM)
	SEP	BLEP	TOTAL		
I. Poles					
a. 30 Footer	63,280 Poles	12,960 Poles	76,240 Poles	10,204	777.95
b. 35 Footer	27,120 Poles	30,240 Poles	57,360 Poles	12,716	729.39
II. Conductor					
a. 1/0 ACSR	7,360 Kms.	2,760 Kms.	10,120 Kms.	30.14	305.02
b. #2 ACSR	7,360 Kms.	2,760 Kms.	10,120 Kms.	21.32	215.76
c. #2 Duplex Wire	7,360 Kms.	2,760 Kms.	10,120 Kms.	20.77	210.19
III. Transformer					
a. 15 KVA	2,880 Units	360 Units	3,240 Units	60,595	196.32
b. 25 KVA	1,920 Units	240 Units	2,160 Units	74,081	160.01
IV. Kwh Meters	240,000 Units	36,000 Units	276,000 Units	818.57	225.93

V. HARDWARES

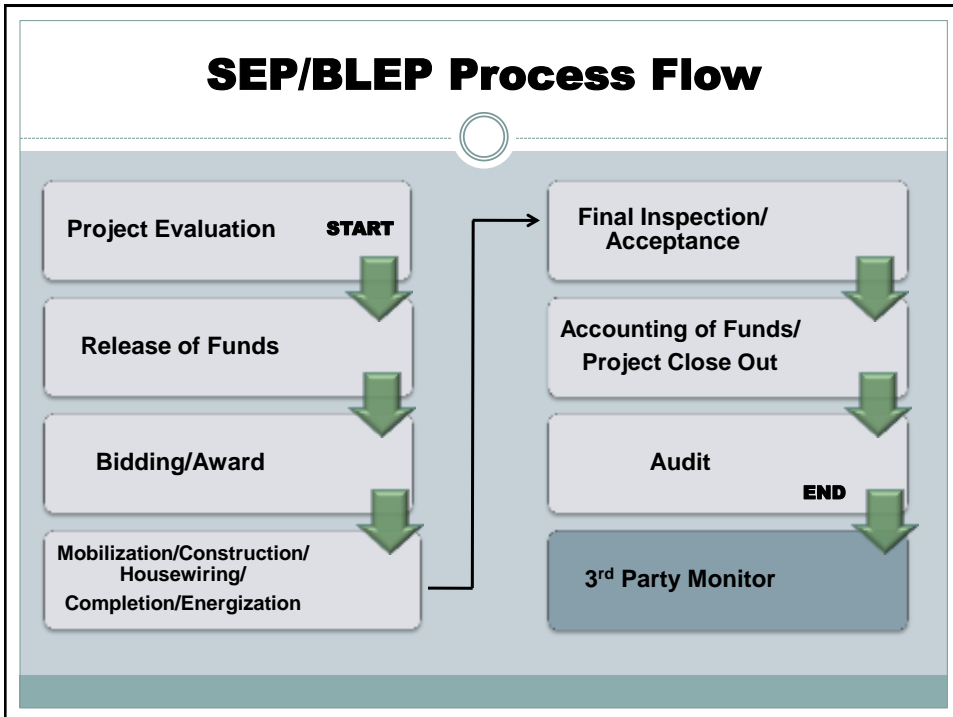
Particular	Quantity			Unit Cost	Extended Cost (PhpM)
	SEP	BLEP	TOTAL		
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	36,000 pieces	14,400 Pieces	50,400 Pieces	108.29	5.46
Bolt, Double Upset, 5/8" X 10"	108,000 pieces	43,200 Pieces	151,200 Pieces	87.24	13.19
Bolt, Oval Eye, 5/8" X 9"	60,000 pieces	24,000 Pieces	84,000 Pieces	83.45	7.01
Bolt, Oval Eye, 5/8" X 10"	72,000 pieces	28,800 Pieces	100,800 Pieces	92.61	9.33
Bolt, Machine, 5/8" X 8"	144,000 pieces	57,600 Pieces	201,600 Pieces	32.84	6.62
Bolt, Machine, 5/8" X 10"	36,000 pieces	14,400 Pieces	50,400 Pieces	41.399	2.11
Bolt, Machine, 5/8" X 12"	24,000 pieces	9,600 Pieces	33,600 Pieces	42.31	1.42
Bolt, Single Upset, 5/8" X 8"	54,000 pieces	21,600 Pieces	75,600 Pieces	71.50	5.40
Bracket, Clevis Deadend Without Spool	36,000 pieces	14,400 Pieces	50,400 Pieces	89.41	4.50
Clamp, Anchor Rod Bonding, Single Eye	36,000 pieces	14,400 Pieces	50,400 Pieces	39.73	2.00
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel	72,000 pieces	28,800 Pieces	100,800 Pieces	145.31	14.64
Clevis, Secondary Swinging Without Spool	108,000 pieces	43,200 Pieces	151,200 Pieces	68.76	10.39
Connector, Compression, #6 - #1/0 ACSR Run To #6 -#2	36,000 pieces	14,400 Pieces	50,400 Pieces	39.35	1.98

V. HARDWARES (contd.)

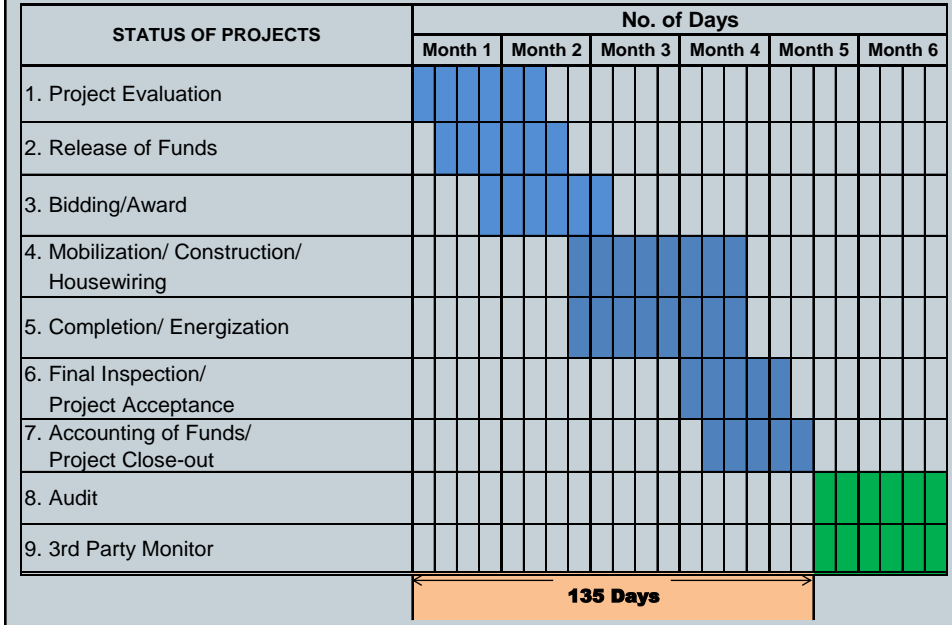
Particular	Quantity			Unit Cost	Extended Cost (PhpM)
	SEP	BLEP	TOTAL		
Connector, Ground Rod (Clamp) For 5/8" Steel Rod	18,000 pieces	7,200 Pieces	25,200 Pieces	19.41	0.48
Cutout and Arrester Combination	6,000 pieces	2,400 Pieces	8,400 Pieces	4,674.00	39.26
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5	84,000 pieces	33,600 Pieces	117,600 Pieces	176.60	20.76
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2	222,000 pieces	88,800 Pieces	310,800 Pieces	16.33	5.07
Insulator, Spool, 3", ANSI, Class 53 - 4	84,000 pieces	33,600 Pieces	117,600 Pieces	31.43	3.69
Insulator, Suspension, 6", Clevis Type	72,000 pieces	28,800 Pieces	100,800 Pieces	210.09	21.17
Pin, Pole Top, Channel, 1" Thread, 20" Long	84,000 pieces	33,600 Pieces	117,600 Pieces	147.13	17.30
Rod, Anchor, Threaded, Single Eye, 5/8" X 7"	36,000 pieces	14,400 Pieces	50,400 Pieces	332.39	16.75
Rod, Ground Steel, Galvanized, 5/8" X 10'	18,000 pieces	7,200 Pieces	25,200 Pieces	385.89	9.72
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole	486,000 pieces	194,400 Pieces	680,400 Pieces	13.08	8.89
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole	36,000 pieces	14,400 Pieces	50,400 Pieces	21.45	1.08
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG	180,000 pieces	72,000 Pieces	252,000 Pieces	5.57	1.40
Wire, Guy, Steel, 3/8", 7 Strand	1,800,000 pieces	720,000 Pieces	2,520,000 Pieces	19.65	49.51

VI. HOUSEWIRING MATERIALS

Particular	Quantity		
	SEP	BLEP	TOTAL
Safety Switch (30 Amps.)	250,000 Set	144,000 Set	394,000 Set
PDX Wire # 8	1,500 Kms.	720,000 Kms.	721,500 Kms.
PDX Wire # 12	3,000 Kms.	1,440,000 Kms.	1,443,000 Kms.
PDX Wire # 14	3,000 Kms.	1,440,000 Kms.	1,443,000 Kms.
Convenience Outlet (2 Gang)	300,000 Set	144,000 Set	444,000 Set
Receptacle	600,000 Pieces	288,000 Pieces	888,000 Pieces
Tumbler Switch	600,000 Pieces	288,000 Pieces	888,000 Pieces
Staple Wire	9,000,000 Pieces	4,320,000 Pieces	13,320,000 Pieces
Electrical Tape (Big)	300,000 Pieces	144,000 Pieces	444,000 Pieces
Junction Box	600,000 Pieces	288,000 Pieces	888,000 Pieces
CFL Bulb (15W)	600,000 Pieces	288,000 Pieces	888,000 Pieces



SEP/BLEP Process Flow Timeline



Difficulties in Project Implementation

1. Failure of Bidding
2. Delayed Deliveries
3. Non-compliant Suppliers/Contractors
4. Lack of tools and equipment by the Contractors
5. Delivery of materials not in accordance with the specification
6. Contractor's failure to assign field/monitoring engineer
7. Contractor's failure to attend to the needs of their field workers

Challenges in the Implementation of Projects

Cross Country Terrain



ANTECO



MOPRECO



ISECO



IFELCO

Challenges in the Implementation of Projects

No Road Network



KAELCO



ANTECO



BENECO



MASELCO

Challenges in the Implementation of Projects

Right of Way Problem



SORECO II



ESAMELCO



FLECO



SAMELCO II

Challenges in the Implementation of Projects

Difficult Terrains



Ravine Crossing: BENECO



Mountain Crossing: IFELCO



Ravine Crossing : MOPRECO



Challenges in the Implementation of Projects

Difficult Terrains



Lukorious Road : INEC



River Crossing : INEC



Hauling of Materials by Banca : TIELCO



end of presentation