

TARIFAS EN BARRA ACTUALIZADAS EN SUBESTACIONES BASE

TARIFAS EN BARRA ACTUALIZADAS EN SUBESTACIONES BASE							
Reajuste al 04 de Marzo de 2009							
Resoluciones OSINERGMIN N°s 341-2008-OS/CD, 462-2008-OS/CD, 463-2008-OS/CD, 675-2008-OS/CD, 018-2009-OS/CD							
	TENSIÓN	PPM	PMP	PEMF	PCSPT ¹	CPSEE ³	CPSEE ²
	kV	\$/kW-mes	ctm. \$/kW.h	ctm. \$/kW.h	\$/kW-mes	ctm. \$/kW.h	ctm. \$/kW.h
SISTEMA ELÉCTRICO INTERCONECTADO NACIONAL							
Talara	220	15.74	13.67	10.05	6.14	0.0078	
Piura Oeste	220	15.81	13.79	10.16	6.14	0.0078	
Chiclayo Oeste	220	15.66	13.88	10.20	6.14	0.0078	
Guadalupe	220	15.65	13.96	10.26	6.14	0.0078	
Guadalupe60	60	15.63	13.99	10.28	6.14	0.0078	
Trujillo Norte	220	15.58	13.97	10.27	6.14	0.0078	
Chimbote 1	220	15.39	13.76	10.15	6.14	0.0078	
Paramonga	220	15.43	13.55	9.90	6.14	0.0078	
Paramonga138	138	15.39	14.23	10.53	6.14	0.0078	0.17
Huacho	220	15.46	13.56	9.89	6.14	0.0078	
Zapallal	220	15.47	13.54	9.84	6.14	0.0078	
Ventanilla	220	15.49	13.53	9.84	6.14	0.0078	
Lima	220	15.56	13.55	9.87	6.14	0.0078	
Cantera	220	15.49	13.45	9.84	6.14	0.0078	
Desierto	220	15.48	12.59	9.64	6.14	0.0078	
Chilca	220	15.48	13.42	9.80	6.14	0.0078	
Independencia	220	15.48	13.48	9.89	6.14	0.0078	
Ica	220	15.66	13.63	10.01	6.14	0.0078	0.16
Marcona	220	16.09	13.92	10.20	6.14	0.0078	0.92
Mantaro	220	15.08	13.13	9.62	6.14	0.0078	
Huayucachi	220	15.19	13.26	9.69	6.14	0.0078	
Pachachaca	220	15.26	13.30	9.72	6.14	0.0078	
Huancavelica	220	15.18	13.23	9.69	6.14	0.0078	
Callahuanca	220	15.35	13.39	9.78	6.14	0.0078	
Cajamarquilla	220	15.49	13.52	9.84	6.14	0.0078	0.07
Huallanca	138	14.77	13.22	9.82	6.14	0.0078	
Vizcarra	220	15.42	13.35	9.76	6.14	0.0078	
Tingo María	220	15.28	13.04	9.51	6.14	0.0078	
Aguyaytia	220	15.20	12.88	9.38	6.14	0.0078	
Pucallpa	220	15.72	13.13	9.53	6.14	0.0078	2.28
Tingo María138	138	15.27	13.04	9.50	6.14	0.0078	
Huánuco	138	15.38	13.25	9.65	6.14	0.0078	
Paragsha II	138	15.34	13.27	9.72	6.14	0.0078	0.09
Oroya Nueva220	220	15.26	13.28	9.73	6.14	0.0078	0.09
Oroya Nueva50	50	15.33	13.34	9.78	6.14	0.0078	0.09
Carhuamayo138	138	15.39	13.38	9.76	6.14	0.0078	0.09
Carhuamayo Nueva	220	15.18	13.18	9.66	6.14	0.0078	
Caripa	138	15.40	13.47	9.82	6.14	0.0078	0.09
Condorcocha44	44	15.49	13.49	9.84	6.14	0.0078	0.62
Madupicchu	138	15.07	13.70	9.79	6.14	0.0078	
Cachimayo	138	15.58	14.13	10.11	6.14	0.0078	
Cusco	138	15.55	14.13	10.11	6.14	0.0078	
Combapata	138	15.74	14.21	10.28	6.14	0.0078	
Tintaya	138	15.87	14.27	10.48	6.14	0.0078	
Ayaviri	138	15.56	13.99	10.30	6.14	0.0078	
Azángaro	138	15.39	13.84	10.18	6.14	0.0078	
Julica	138	15.87	14.20	10.46	6.14	0.0078	
Puno138	138	16.02	14.30	10.57	6.14	0.0078	
Puno220	220	16.03	14.32	10.59	6.14	0.0078	
Callali	138	15.94	14.33	10.56	6.14	0.0078	
Santuario	138	15.93	14.16	10.48	6.14	0.0078	
Arequipa	138	16.03	14.25	10.53	6.14	0.0078	0.12
Socabaya220	220	16.04	14.23	10.53	6.14	0.0078	
Cerro Verde	138	16.08	14.28	10.55	6.14	0.0078	
Repartición	138	16.15	14.33	10.59	6.14	0.0078	
Mollendo	138	16.20	14.34	10.60	6.14	0.0078	
Montalvo220	220	16.13	14.37	10.66	6.14	0.0078	0.46
Montalvo	138	16.13	14.38	10.67	6.14	0.0078	0.46
Ilo	138	16.27	14.51	10.78	6.14	0.0078	0.46
Botiflaca	138	16.27	14.48	10.74	6.14	0.0078	0.46
Toquepala	138	16.30	14.48	10.77	6.14	0.0078	0.46
Aricota138	138	16.25	14.36	10.75	6.14	0.0078	
Aricota66	66	16.22	14.30	10.75	6.14	0.0078	
Tacna220 (SE Los Héroes)	220	16.20	14.41	10.69	6.14	0.0078	
Tacna66 (SE Los Héroes)	66	16.39	14.48	10.71	6.14	0.0078	0.56
SISTEMAS AISLADOS							
Adiessa	MT	22.33	23.51	23.51			
Chavimochic	MT	22.33	23.51	23.51			
Edelnor	MT	22.33	23.51	23.51			
Edelsa	MT	22.33	23.51	23.51			
Egepsa	MT	22.33	23.51	23.51			
Electro Oriente	MT	18.73	33.82	33.82			
Electro Pangoa	MT	22.33	23.51	23.51			
Electro Puno	MT	16.56	45.76	45.76			
Electro Sur Este	MT	16.69	51.63	51.63			
Electro Sur Medio	MT	16.56	45.76	45.76			
Electro Ucayali	MT	22.33	23.51	23.51			
Electrocentro	MT	22.33	23.51	23.51			
Electronorte	MT	21.99	22.10	22.10			
Emseusa	MT	20.63	16.96	16.96			
Hidrandina	MT	22.30	23.70	23.70			
Seal	MT	18.57	40.24	40.24			
Sersa	MT	18.92	34.65	34.65			

1. Resolución OSINERGMIN N° 018-2009-OS/CD.
2. Resoluciones OSINERG N° 065-2005-OS/CD, N° 146-2005-OS/CD, Resoluciones OSINERGMIN N° 169-2007-OS/CD, N° 360-2007-OS/CD, N° 463-2008.
3. CPSEE, Línea 220kV Zapallal-Chimbote 1.

Peaje de Conexión al Sistemas Principal de Transmisión
Resoluciones OSINERGMIN N° 341-2008-OS/CD, N° 462-2008-OS/CD.

Reajuste al 04 de Marzo de 2009	
Sistema de Transmisión	PCSPT \$/kW-mes
SPT de REP	1.18
SPT de San Gabán	0.01
SPT de Antamina	0.01
SPT de Eteselva	0.17
SPT de Redesar	0.77
SPT de Transmataro	1.89
SPT de ISA	0.57
Garantía por Red Principal TGP	0.84
Garantía por Red Principal GNLC	0.06
	5.51

Peaje Secundario por Transmisión Equivalente en energía de la Subestaciones Base
Resoluciones OSINERG N° 065-2005-OS/CD, N° 146-2005-OS/CD

Reajuste al 04 de Marzo de 2009		
Subestaciones Base	Tensión kV	Instalaciones Secundarias
Paragsha II	138	
Oroya Nueva	220	
Oroya Nueva	50	S.E. Oroya Nueva - Transformación 220/50/13.8 kV
Carhuamayo	138	
Caripa	138	
Condorcocha	44	SST Transformación Oroya Nueva 220/50/13.8 kV
Montalvo	220	SST Caripa - Condorcocha, S.E. Condorcocha 138/44 kV
Montalvo	138	
Ilo	138	SST de Enersur
Botiflaca	138	
Toquepala	138	
Arequipa	138	SST Santuario - Chilina 138 kV
Cajamarquilla	220	SST Celda de Transformación 220kV - S.E. Cajamarquilla
Paramonga Existente	138	SST Paramonga Nueva-Paramonga Existente
		CPSEE01 ctm. \$/kW.h
		0.0871
		0.0871
		0.5314
		0.4628
		0.1187
		0.0706
		0.0374

Peaje Secundario por Transmisión Equivalente en energía de la Subestaciones Base
Resoluciones OSINERGMIN N° 169-2007-OS/CD, N° 360-2007-OS/CD, N° 463-2008-OS/CD, N° 577-2008-OS/CD

Reajuste al 04 de Marzo de 2009		
Subestaciones Base	Tensión kV	Instalaciones Secundarias
Tacna	66	S.E. Tacna - Transf. 220/66/10 kV 50 MVA
Pucallpa	60	L.T. Aguyaytia-Pucallpa, S.E. Aguyaytia 220/138/22.9 kV, S.E. Pucallpa 138/60/10 kV y Reactor 8 MVA
Paramonga Existente	138	SST Paramonga Nueva 220/138kV
Ica	220	SST Independencia - Ica 220kV
Marcona	220	SST Ica - Marcona 220kV
		CPSEE ctm. \$/kW.h
		0.5638
		0.1334
		0.1592
		0.1592
		0.7570
		0.9162

PRECIOS EN BARRA EN SUBESTACIONES BASE

Reajuste al 04 de Marzo de 2009				
	TENSIÓN	PPB	PEBP*	PEBP*
	kV	\$/kW-mes	ctm. \$/kW.h	ctm. \$/kW.h
SISTEMA ELÉCTRICO INTERCONECTADO NACIONAL				
Talara	220	21.89	13.67	10.06
Piura Oeste	220	21.96	13.80	10.17
Chiclayo Oeste	220	21.81	13.88	10.21
Guadalupe	220	21.80	13.96	10.27
Guadalupe60	60	21.77	14.00	10.29
Trujillo Norte	220	21.73	13.96	10.28
Chimbote 1	220	21.53	13.77	10.15
Paramonga	220	21.58	13.56	9.91
Paramonga138	138	21.53	14.41	10.71
Huacho	220	21.60	13.57	9.90
Zapallal	220	21.61	13.55	9.85
Ventanilla	220	21.64	13.54	9.85
Lima	220	21.70	13.56	9.88
Cantera	220	21.64	13.45	9.85
Desierto	220	21.62	12.60	9.64
Chilca	220	21.62	13.43	9.81
Independencia	220	21.62	13.49	9.90
Ica	220	21.81	13.80	10.17
Marcona	220	22.23	14.85	11.13
Mantaro	220	21.22	13.14	9.63
Huayucachi	220	21.34	13.27	9.70
Pachachaca	220	21.41	13.30	9.73
Huancavelica	220	21.32	13.23	9.70
Callahuanca	220	21.50	13.40	9.78
Cajamarquilla	220	21.64	13.59	9.92
Huallanca	138	20.91	13.22	9.83
Vizcarra	220	21.57	13.36	9.77
Tingo María	220	21.43	13.05	9.52
Aguyaytia	220	21.35	12.89	9.39
Pucallpa	60	21.87	15.42	11.82
Tingo María138	138	21.42	13.05	9.51
Huánuco	138	21.52	13.26	9.66
Paragsha II	138	21.49	13.37	9.81
Oroya Nueva220	220	21.41	13.38	9.82
Oroya Nueva50	50	21.47	13.44	9.87
Carhuamayo138	138	21.53	13.47	9.86
Carhuamayo Nueva	220	21.32	13.19	9.67
Caripa	138	21.54	13.56	9.92
Condorcocha44	44	21.64	14.12	10.47
Madupicchu	138	21.21	13.71	9.79
Cachimayo	138	21.73	14.14	10.12
Cusco	138	21.69	14.14	10.12
Combapata	138	21.89	14.22	10.29
Tintaya	138	22.01	14.28	10.49
Ayaviri	138	21.70	14.00	10.30
Azángaro	138	21.53	13.85	10.19
Julica	138	22.01	14.21	10.47
Puno138	138	22.16	14.31	10.58
Puno220	220	22.18	14.32	10.59
Callali	138	22.08	14.33	10.57
Santuario	138	22.07	14.17	10.49
Arequipa	138	22.18	14.37	10.65
Socabaya220	220	22.19	14.24	10.54
Cerro Verde	138	22.22	14.29	10.56
Repartición	138	22.29	14.33	10.59
Mollendo	138	22.35	14.35	10.61
Montalvo220	220	22.28	14.84	11.13
Montalvo	138	22.28	14.86	11.14
Ilo	138	22.42	14.98	11.25
Botiflaca	138	22.42	14.95	11.21
Toquepala	138	22.44	14.95	11.24
Aricota138	138	22.39	14.37	10.76
Aricota66	66	22.36	14.31	10.76
Tacna220 (SE Los Héroes)	220	22.35	14.42	10.70
Tacna66 (SE Los Héroes)	66	22.53	15.05	11.28
SISTEMAS AISLADOS				
Adiessa	MT	22.33	23.51	23

TARIFAS A NIVEL GENERACIÓN ACTUALIZADAS EN SUBESTACIONES BASE

TARIFAS A NIVEL GENERACIÓN ACTUALIZADAS EN SUBESTACIONES BASE

Reajuste al 04 de Marzo de 2009

Resolución OSINERGMIN N° 341-2008-OS/CD, N° 462-2008-OS/CD, N° 463-2008-OS/CD, N° 640-2008-OS/CD, N° 017-2009-OS/CD

		TENSIÓN	PPM	PEMP	PEMF	PCSPT ¹	CPSEE ³	CPSEE ²
		kV	\$/kWh-mes	ctm. \$/kWh	ctm. \$/kWh	\$/kWh-mes	ctm. \$/kWh	ctm. \$/kWh
SISTEMA ELÉCTRICO INTERCONECTADO NACIONAL								
Talara	220	16.69	14.64	11.61	6.14	0.0078		
Piura Oeste	220	16.77	14.76	11.72	6.14	0.0078		
Chiclayo Oeste	220	16.61	14.86	11.76	6.14	0.0078		
Guadalupe	220	16.59	14.94	11.83	6.14	0.0078		
Guadalupe60	60	16.57	14.97	11.86	6.14	0.0078		
Trujillo Norte	220	16.53	14.94	11.84	6.14	0.0078		
Chimbote 1	220	16.32	14.74	11.70	6.14	0.0078		
Paramonga	220	16.37	14.53	11.44	6.14	0.0078		
Paramonga138	138	16.32	15.21	12.12	6.14	0.0078		0.17
Huacho	220	16.39	14.54	11.43	6.14	0.0078		
Zapallal	220	16.40	14.51	11.39	6.14	0.0078		
Ventanilla	220	16.42	14.50	11.39	6.14	0.0078		
Lima	220	16.51	14.53	11.41	6.14	0.0078		
Cantera	220	16.42	14.42	11.39	6.14	0.0078		
Desierto	220	16.41	13.55	11.16	6.14	0.0078		
Chilca	220	16.41	14.39	11.33	6.14	0.0078		
Independencia	220	16.41	14.45	11.43	6.14	0.0078		
Ica	220	16.61	14.60	11.55	6.14	0.0078		0.16
Marcona	220	17.06	14.90	11.76	6.14	0.0078		0.92
Mantaro	220	15.99	14.10	11.15	6.14	0.0078		
Huayucachi	220	16.11	14.23	11.22	6.14	0.0078		
Pachachaca	220	16.18	14.26	11.25	6.14	0.0078		
Huancavelica	220	16.10	14.19	11.22	6.14	0.0078		
Callahuanca	220	16.28	14.35	11.30	6.14	0.0078		
Cajamarquilla	220	16.42	14.49	11.39	6.14	0.0078		0.07
Huallanca	138	15.66	14.18	11.36	6.14	0.0078		
Vizcarra	220	16.36	14.32	11.29	6.14	0.0078		
Tingo Maria	220	16.20	14.00	11.02	6.14	0.0078		
Aguyaylla	220	16.13	13.84	10.89	6.14	0.0078		
Pucallpa	60	16.67	14.10	11.05	6.14	0.0078		2.28
Tingo Maria138	138	16.19	14.00	11.01	6.14	0.0078		
Huánuco	138	16.31	14.22	11.17	6.14	0.0078		
Paragsha II	138	16.27	14.24	11.25	6.14	0.0078		0.09
Oroya Nueva220	220	16.18	14.25	11.26	6.14	0.0078		0.09
Oroya Nueva50	50	16.26	14.31	11.30	6.14	0.0078		0.09
Carhuamayo138	138	16.32	14.35	11.29	6.14	0.0078		0.09
Carhuamayo Nueva	220	16.10	14.16	11.19	6.14	0.0078		
Caripa	138	16.33	14.44	11.36	6.14	0.0078		0.09
Condorcocha44	44	16.42	14.47	11.39	6.14	0.0078		0.62
Machupicchu	138	15.98	14.68	11.32	6.14	0.0078		
Cachimayo	138	16.53	15.12	11.67	6.14	0.0078		
Cusco	138	16.50	15.12	11.67	6.14	0.0078		
Combapata	138	16.69	15.19	11.86	6.14	0.0078		
Tintaya	138	16.83	15.25	12.08	6.14	0.0078		
Ayaviri	138	16.51	14.97	11.87	6.14	0.0078		
Azángaro	138	16.32	14.81	11.74	6.14	0.0078		
Julica	138	16.83	15.18	12.05	6.14	0.0078		
Puno138	138	17.00	15.28	12.17	6.14	0.0078		
Puno220	220	17.01	15.30	12.18	6.14	0.0078		
Callali	138	16.90	15.32	12.16	6.14	0.0078		
Santuario	138	16.89	15.14	12.08	6.14	0.0078		
Arequipa	138	17.01	15.23	12.12	6.14	0.0078		0.12
Socabaya220	220	17.02	15.21	12.12	6.14	0.0078		
Cerro Verde	138	17.05	15.26	12.15	6.14	0.0078		
Repartición	138	17.12	15.32	12.18	6.14	0.0078		
Mollendo	138	17.19	15.33	12.20	6.14	0.0078		
Montalvo220	220	17.11	15.36	12.25	6.14	0.0078		0.46
Montalvo	138	17.11	15.37	12.28	6.14	0.0078		0.46
Ilo	138	17.26	15.50	12.39	6.14	0.0078		0.46
Botiflaca	138	17.26	15.46	12.35	6.14	0.0078		0.46
Toquepala	138	17.28	15.46	12.38	6.14	0.0078		0.46
Aricota138	138	17.23	15.34	12.36	6.14	0.0078		
Aricota66	66	17.20	15.28	12.36	6.14	0.0078		
Tacna220 (SE Los Héroes)	220	17.19	15.39	12.30	6.14	0.0078		
Tacna66 (SE Los Héroes)	66	17.38	15.46	12.32	6.14	0.0078		0.56
SISTEMAS AISLADOS								
Adnhesa	MT	22.54	20.49	20.49				
Chavimochic	MT	22.54	20.53	20.53				
Edelnor	MT	22.54	20.53	20.53				
Edelsa	MT	22.54	20.56	20.56				
Egepsa	MT	22.54	20.60	20.60				
Electro Oriente	MT	17.18	19.92	19.92				
Electro Pangoa	MT	22.54	20.53	20.53				
Electro Puno	MT	10.73	19.50	19.50				
Electro Sur Este	MT	10.36	22.45	22.45				
Electro Sur Medio	MT	10.73	19.42	19.42				
Electro Ucayali	MT	22.54	20.52	20.52				
Electrocentro	MT	22.54	20.56	20.56				
Electronorte	MT	21.99	19.15	19.15				
Emseusa	MT	20.60	15.66	15.66				
Hidrandina	MT	22.51	20.61	20.61				
Seel	MT	16.39	22.11	22.11				
Sersa	MT	17.46	20.45	20.45				

1. Resolución OSINERGMIN N° 018-2009-OS/CD.

2. Resoluciones OSINERG N° 065-2005-OS/CD, N° 146-2005-OS/CD, N° 251-2006-OS/CD, Resoluciones OSINERGMIN N° 169-2007-OS/CD, N° 360-2007-OS/CD.

3. CPSEE, Línea 220kV Zapallal-Chimbote1.

Peaje de Conexión al Sistemas Principal de Transmisión

Resoluciones OSINERGMIN N° 341-2008-OS/CD, N° 462-2008-OS/CD.

Reajuste al 04 de Marzo de 2009

Sistema de Transmisión	PCSPT \$/kWh-mes
SPT de REP	1.18
SPT de San Gabán	0.01
SPT de Antamina	0.01
SPT Eteselva	0.17
SPT de Redesur	0.77
SPT de Transmataro	1.99
SPT de ISA	0.57
Garantía por Red Principal TGP	0.84
Garantía por Red Principal GNLC	0.06
	5.51

Peaje Secundario por Transmisión Equivalente en energía de la Subestaciones Base

Resoluciones OSINERG N° 065-2005-OS/CD, N° 146-2005-OS/CD

Reajuste al 04 de Marzo de 2009

Subestaciones Base	Tensión kV	Instalaciones Secundarias	CPSEE01 ctm. \$/kWh
Paragsha II	138		
Oroya Nueva	220		
Oroya Nueva	50	S.E. Oroya Nueva - Transformación 220/50/13.8 kV	0.0871
Carhuamayo	138		
Caripa	138		
Condorcocha	44	SST Transformación Oroya Nueva 220/50/13.8 kV	0.0871
		SST Caripa - Condorcocha, S.E. Condorcocha 138/44 kV	0.5314
Montalvo	220		
Montalvo	138		
Ilo	138	SST de Enersur	0.4628
Botiflaca	138		
Toquepala	138		
Arequipa	138		
Cajamarquilla	220	SST Santuario - Chilina 138 kV	0.1187
		SST Celda de Transformación 220kV - S.E. Cajamarquilla	0.0706
Paramonga Existente	138	SST Paramonga Nueva-Paramonga Existente	0.0374

Peaje Secundario por Transmisión Equivalente en energía de la Subestaciones Base

Resoluciones OSINERGMIN N° 169-2007-OS/CD, N° 360-2007-OS/CD, N° 463-2008-OS/CD, N° 577-2008-OS/CD

Reajuste al 04 de Marzo de 2009

Subestaciones Base	Tensión kV	Instalaciones Secundarias	CPSEE ctm. \$/kWh
Tacna	66	S.E. Tacna - Transf. 220/66/10 kV 50 MVA	0.5638
Pucallpa	60	L.T. Aguyaylla-Pucallpa, S.E. Aguyaylla 220/138/22.9 kV, S.E. Pucallpa 138/60/10 kV y Reactor 8 MVA	2.2617
Paramonga Existente	138	SST Paramonga Nueva 220/138kV	0.1334
Ica	220	SST Independencia - Ica 220kV	0.1592
		SST Independencia - Ica 220kV	0.1592
Marcona	220	SST Ica - Marcona 220kV	0.7570
		Total	0.9162

PRECIOS A NIVEL GENERACIÓN EN SUBESTACIONES BASE

Reajuste al 04 de Marzo de 2009

	TENSIÓN		PPB		PEBP		PEBF	
	kV	\$/kWh-mes	ctm. \$/kWh	ctm. \$/kWh	ctm. \$/kWh	ctm. \$/kWh	ctm. \$/kWh	ctm. \$/kWh
SISTEMA ELÉCTRICO INTERCONECTADO NACIONAL								
Talara	220	22.83	14.65		11.62			
Piura Oeste	220	22.91	14.77		11.73			
Chiclayo Oeste	220	22.75	14.87		11.77			
Guadalupe	220	22.73	14.95		11.84			
Guadalupe60	60	22.71	14.98		11.87			
Trujillo Norte	220	22.67	14.95		11.85			
Chimbote 1	220	22.46	14.75		11.71			
Paramonga	220	22.51	14.54		11.45			
Paramonga138	138	22.46	15.39		12.30			
Huacho	220	22.53	14.55		11.44			
Zapallal	220	22.54	14.52		11.40			
Ventanilla	220	22.56	14.51		11.40			
Lima	220	22.65	14.54		11.42			
Cantera	220	22.56	14.43		11.40			
Desierto	220	22.55	13.56		11.17			
Chica	220	22.55	14.40		11.34			
Independencia	220	22.55	14.46		11.44			
Ica	220	22.75	14.77		11.72			
Marcona	220	23.20	15.82		12.68			
Mantaro	220	22.13	14.11		11.16			
Huayucachi	220	22.25	14.24		11.23			
Pachacalla	220	22.22	14.27		11.26			
Huancavelica	220	22.24	14.20		11.23			
Callahuanca	220	22.42	14.36		11.31			
Cajamarquilla	220	22.56	14.57		11.47			
Huallanca	138	21.80	14.19		11.37			
Vizcarra	220	22.50	14.33		11.30			
Tingo Maria	220	22.34	14.21		11.03			
Aguyaytia	220	22.27	13.85		10.90			
Pucallpa	60	22.81	16.39		13.34			
Tingo Maria138	138	22.33	14.01		11.02			
Huánuco	138	22.45	14.23		11.18			
Paragsha II	138	22.41	14.33		11.34			
Oroya Nueva220	220	22.32	14.34		11.35			
Oroya Nueva50	50	22.40	14.40		11.39			
Carhuamayo138	138	22.46	14.44		11.38			
Carhuamayo Nueva	220	22.24	14.17		11.20			
Caripa	138	22.47	14.53		11.45			
Condorcocha44	44	22.56	15.10		12.02			
Machupichico	138	22.12	14.69		11.33			
Cachimayo	138	22.67	15.13		11.68			
Cusco	138	22.64	15.13		11.68			
Combapata	138	22.83	15.20		11.87			
Tintaya	138	22.97	15.26		12.09			
Ayavi	138	22.65	14.98		11.88			
Azángaro	138	22.46	14.82		11.75			
Juliaca	138	22.97	15.19		12.06			
Puno138	138	23.14	15.29		12.18			
Puno220	220	23.04	15.31		12.19			
Callali	138	23.04	15.33		12.17			
Santuario	138	23.03	15.15		12.09			
Arequipa	138	23.15	15.36		12.25			
Socabaya220	220	23.16	15.22		12.13			
Cerro Verde	138	23.19	15.27		12.16			
Repartición	138	23.26	15.33		12.19			
Mollendo	138	23.33	15.34		12.21			
Montalvo220	220	23.25	15.33		12.72			
Montalvo	138	23.25	15.84		12.75			
Ilo	138	23.40	15.97		12.86			
Botiflaca	138	23.40	15.93		12.82			
Toquepala	138	23.42	15.93		12.85			
Aricota138	138	23.37	15.35		12.37			
Aricota66	66	23.34	15.29		12.37			
Tacna220 (SE Los Héroes)	220	23.33	15.40		12.31			
Tacna66 (SE Los Héroes)	66	23.52	16.03		12.89			
SISTEMAS AISLADOS								
Adinelsa	MT	22.54	20.49		20.49			
Chavimochic	MT	22.54	20.53		20.53			
Edelnor	MT	22.54	20.53		20.53			
Edelsa	MT	22.54	20.56		20.56			
Eggesia	MT	22.54	20.60		20.60			
Electro Oriente	MT	17.18	19.92		19.92			
Electro Pangaea	MT	22.54	20.53		20.53			
Electro Puno	MT	10.73	19.90		19.50			
Electro Sur Este	MT	10.36	22.45		22.45			
Electro Sur Medio	MT	10.73	19.42		19.42			
Electro Ucayali	MT	22.54	20.52		20.52			
Electrocentro	MT	22.54	20.56		20.56			
Electronorte	MT	19.19	19.15		19.15			
Emseusa	MT	20.60	15.66		15.66			
Hidrandina	MT	22.51	20.61		20.61			
Sesil	MT	16.39	22.11		22.11			
Setsa	MT	17.46	20.45		20.45			