



Operation Number: **NI-L1040**
Year- PMR Cycle: **First period Jan-Jun 2015**
Last Update: **10/16/2015**
PMR Validation Stage: **Validated by Representative**

Chief of Operations validation date: **10/16/2015**
Division Chief validation date: **11/06/2015**
Country Representative validation date: **11/09/2015**

Inter-American Development Bank - IDB
Office of Strategic Planning and Development Effectiveness

Operation Profile

Basic Data

Operation name:	National Sustainable Electrification and Renewable Energy Program (PNESER)	Loan Number:	1435/OP-NI,2342/BL-NI,2342/BL-NI-1,2342/BL-NI-2,2342/BL-NI-3
Executing Agency (EA):	EMPRESA NACIONAL DE TRANSMISIÓN ELÉCTRIC A,MINISTERIO DE ENERGIA Y MINAS ,MINISTERIO DE ENERGIA Y MINAS ,EMPRESA NACIONAL DE TRANSMISIÓN ELÉCTRIC A,EMPRESA NICARAGUENSE DE ELECTRICIDAD		
Team Leader:	Baldivieso,Hector	Sector/Subsector:	NEW POWER DISTRIBUTION & TRANSMISSION PROJECTS
Operation Type:	Loan Operation	Overall Stage:	Disbursing (From eligibility until all the loans are closed).
Lending Instrument:	Investment Loan	Country:	NICARAGUA
Borrower:	REPUBLICA DE NICARAGUA ,REPUBLICA DE NICARAGUA	Convergence related Operation(s):	NI-L1063,NI-L1050

Total Cost and Source

	Original IDB	Current Active IDB	Local Counterpart	Co-Financing/Country	Total operation cost - Original Estimate
Aggregated	\$87,500,000.00	\$87,500,000.00	\$0.00	\$0.00	\$87,500,000.00
NI-L1040	\$30,500,000.00	\$30,500,000.00	\$0.00	\$0.00	\$30,500,000.00
NI-L1050	\$22,000,000.00	\$22,000,000.00	\$0.00	\$0.00	\$22,000,000.00
NI-L1063	\$35,000,000.00	\$35,000,000.00	\$0.00	\$0.00	\$35,000,000.00

Available Funds (US\$)

	Current IDB	Disb. Amount to Date	% Disbursed	Undisbursed Balance
Aggregated	\$87500000.00	44389246.13	50.73%	\$43110753.87
NI-L1040	\$30,500,000.00	\$29,243,644.21	95.88%	\$1,256,355.79
NI-L1050	\$22,000,000.00	\$8,165,808.65	\$0.37	\$13,834,191.35
NI-L1063	\$35,000,000.00	\$6,979,793.27	\$0.20	\$28,020,206.73

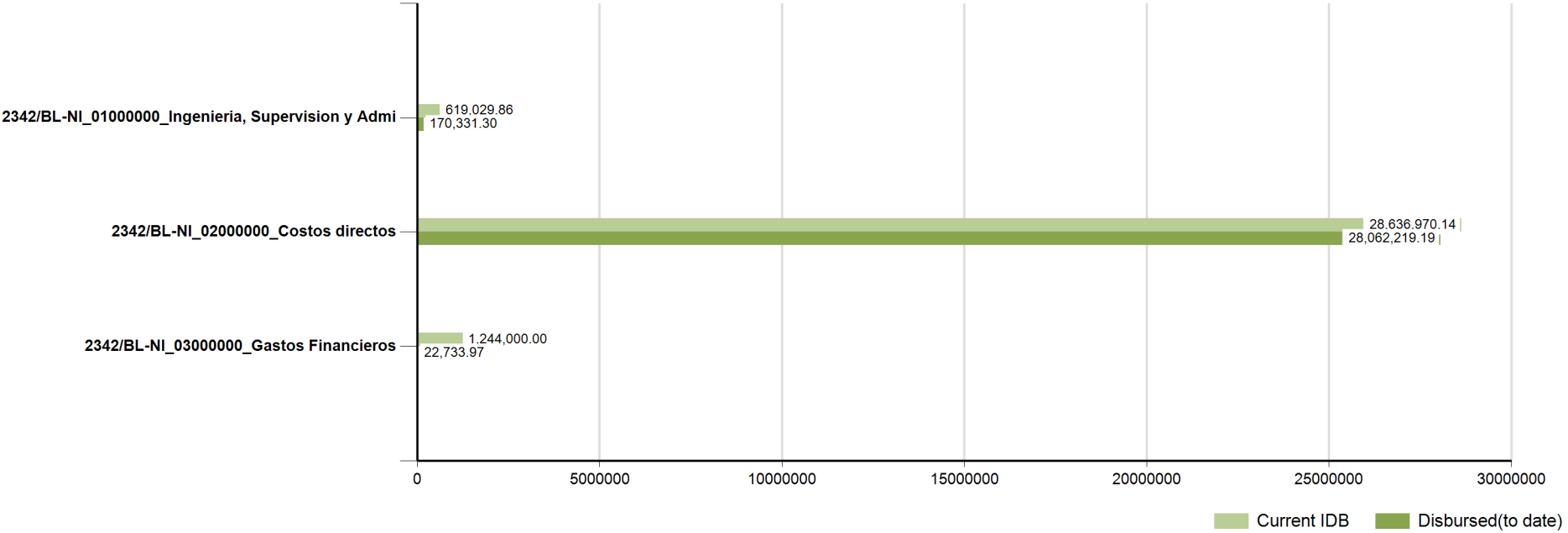
Environmental and Social Safeguards

Main Operation	
Impacts Category:	
Safeguard Performance Rating:	
Safeguard Performance Rating - Rationale:	

Reformulation Information

	Main Operation	Oper. NI-L1050	Oper. NI-L1063
Was/Were the objective(s) of this operation reformulated?	NO	NO	NO
Date of approval:			

Expense Categories by Loan Contract (cumulative values)




Results Matrix

Impacts

Impact:	1 Alivio a las finanzas del Estado liberando recursos para la reduccion de la pobreza													
Observation:														
Indicators	Flags*	Unit of Measure	Baseline	Baseline Year	Means of verification	Observations		2012	2013	2014	2015	2016	2017	EOP
1.1 Reduccion de importaciones de Fuel Oil		miles de barriles	0.00	2009	Estadisticas de generaci3n con recursos renovables y rendimiento del Fuel Oil [barriles/MWh] del Instituto Nicaraguense de Energia (INE)	La reduccion de importaciones de fuel oil se asume que estar3 dada por todo incremento de generacion bruta en el SIN con recirsos renovables, por encima de los niveles del a3o 2009. Los valores reportados para cada a3o son incrementales respecto al a3o b	P	657.00	1,126.00	1,309.00	1,367.00	1,540.00		1,540.00
							P(a)	657.00	1,126.00	1,970.00	2,140.00	2,390.00	2,780.00	2,780.00
							A	1,001.00	1,670.00					

 RF - RF Indicator  SI - Sector Indicator  CI - Country Indicator  PG - Pro-Gender  PE - Pro-Ethnicity

Outcomes

Outcome:	1 Proporción importante de la población con acceso a un servicio de electricidad confiable													
Observation:														
Indicators	Flags*	Unit of Measure	Baseline	Baseline Year	Means of verification	Observations	2012	2013	2014	2015	2016	2017	EOP	
1.1 Cobertura del servicio eléctrico en el país	 RF	Porcentaje	66.70	2009	Estadísticas de la CEPAL	Expresado en porcentaje de viviendas con electricidad	P	77.70	79.20	80.80	82.30	83.80	83.80	
							P(a)	77.70	79.20	80.80	82.30	83.80	85.30	85.30
							A		76.31	80.42				

1.2 Confiabilidad del servicio electrico en el sistema de transmision, asociado al indice de falla		indice de falla	6.42	2009	Estadisticas ENATREL	El indice de falla es calculado como el numero de fallas por año, por cada 100 km de línea de transmisión	P		6.30			6.10		6.10
							P(a)		6.30	6.30	6.30	6.10	6.10	6.10
							A		6.33	6.30				
1.3 Reduccion de consumo por programas de eficiencia energetica		GWh/a	0.00	2009	Evaluaciones ex-post de MEM		P			90.00	180.00	221.00		221.00
							P(a)			0.00	52.70	97.50	150.00	150.00
							A		0.00	0.00				
1.4 Reduccion de perdidas no tecnicas de electricidad en asentamientos		%	0.00	2009	Estadisticas del INE		P		0.56	1.86	3.26	4.56		4.56
							P(a)		0.56	1.00	1.03	1.32	2.21	2.21
							A		0.33	0.58				

Outcome:	2 Matriz energetica modificada
Observation:	

Indicators	Flags*	Unit of Measure	Baseline	Baseline Year	Means of verification	Observations	2012	2013	2014	2015	2016	2017	EOP
2.1 Proporción de la generación eléctrica a partir de fuentes renovables		%	27.90	2009	Estadísticas del INE	Calculado como la relacion entre la generacion de fuentes renovable y la generacion total en el sistema	P	34.80	40.50	42.90	43.30	44.10	44.10
	P(a)						34.80	40.50	53.10	53.40	54.90	58.30	58.30
	A						40.20	50.40	53.10				

Outputs: Annual Physical and Financial Progress

1. Electrificacion rural por extension de redes		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2015	EOP		2015	EOP
Viviendas conectadas	Viviendas	P	37,130.00	117,790.00	P	31,776,000.00	106,880,573.00
		P(a)	9,600.00	86,406.00	P(a)	24,000,000.00	107,941,200.00
		A	0.00	55,527.00	A	13,997,296.00	59,221,464.00
2. Normalizacion del servicio en asentamientos		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2015	EOP		2015	EOP
Viviendas normalizados en asentamientos (clientes nuevos)	Viviendas	P	12,638.00	39,043.00	P	2,910,000.00	10,792,688.00
		P(a)	3,000.00	22,850.00	P(a)	2,280,000.00	10,067,000.00
		A	0.00	5,596.00	A	120,000.00	2,621,884.00
Viviendas normalizadas en asentamientos (clientes existentes)	Viviendas	P	40,468.00	125,003.00	P	9,318,000.00	34,557,101.00
		P(a)	9,600.00	73,150.00	P(a)	7,290,000.00	32,233,000.00
		A	0.00	17,915.00	A	359,568.00	8,369,802.00
3. Expansion en zonas aisladas con energia renovable (ER)		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2015	EOP		2015	EOP
Usuarios conectados en proyectos con ER en sistemas aislados	Usuarios	P	1,000.00	5,820.00	P	5,000,000.00	16,500,000.00
		P(a)	0.00	5,406.00	P(a)	1,600,000.00	17,214,529.00
		A	0.00	406.00	A	586,248.00	1,284,547.00
Una Estrategia para la atención de las Zonas aisladas aprobada	Estrategia	P		1.00	P		25,000.00
		P(a)		1.00	P(a)	0.00	0.00
		A		1.00	A		0.00
4. Preinversion y estudios proyectos generacion de ER		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2015	EOP		2015	EOP
Estrategia de planeamiento y expansión de la generación eléctrica del Pais actualizada y aprobada.	Estrategia	P	0.00	1.00	P	200,000.00	650,445.00
		P(a)	0.00	1.00	P(a)	65,000.00	747,748.00
		A	0.00	0.00	A	14,999.00	145,103.00
Plan maestro de la Cuenca del Río Grande de Matagalpa y Superior del Río Coco, elaborado	Estudio	P	0.00	1.00	P	980,000.00	3,342,000.00
		P(a)	0.00	1.00	P(a)	890,000.00	3,296,157.00
		A	0.00	0.00	A	0.00	956,757.00
Estudio de prospección y evaluación de potencial eólico y Estudio de Factibilidad para sistema de generación eólica en seis sitios para interconexión al SIN, elaborados	Estudio	P	0.00	1.00	P	324,000.00	1,080,000.00
		P(a)	0.00	1.00	P(a)	285,000.00	1,002,488.00
		A	0.00	0.00	A	0.00	156,848.00
Estudio de factibilidad para la implementación de generación eléctrica distribuida en Nicaragua, elaborado	Estudio	P		1.00	P		80,000.00
		P(a)		1.00	P(a)		79,900.00
		A		1.00	A		79,900.00
Estudio de Pre-Factibilidad para el Proyecto Geotérmico Volcan Cosiguina, elaborado	Estudio	P	1.00	1.00	P	2,000,000.00	3,750,000.00
		P(a)	0.00	1.00	P(a)	370,000.00	3,738,550.00
		A	0.00	0.00	A	0.00	1,869,275.00
Capacidad/Potencia de energía renovable, estudiada a nivel de factibilidad	MW	P	0.00	358.00	P	2,000,000.00	10,173,000.00
		P(a)	0.00	358.00	P(a)	0.00	6,231,057.00
		A	0.00	0.00	A	0.00	0.00
5. Eficiencia Energetica		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2015	EOP		2015	EOP

Luminarias instaladas para plan de ahorro de alumbrado público	Luminarias	P	13,624.00	25,624.00	P	3,400,000.00	6,850,000.00
		P(a)	5,000.00	25,624.00	P(a)	3,240,000.00	9,676,844.00
		A	0.00	0.00	A	228,316.00	570,791.00
Luminarias instaladas para sustitución de bujías incandescentes por lámpara fluorescentes compactas en el sector residencial	Luminarias	P	2,000,000.00	4,000,000.00	P	2,500,000.00	6,400,000.00
		P(a)	720,000.00	2,140,000.00	P(a)	3,680,000.00	8,273,156.00
		A	0.00	0.00	A	866,640.00	866,640.00
Luminarias instaladas para sustitución de lámparas fluorescentes magnéticas por electrónicas en el sector gobierno	Luminarias	P	30,910.00	50,910.00	P	1,270,000.00	2,850,000.00
		P(a)	10,000.00	50,000.00	P(a)	850,000.00	2,850,000.00
		A	0.00	0.00	A	0.00	50,000.00
Sistemas solares térmicos instalados para proyecto demostrativo	Sistemas	P		13.00	P		1,248,000.00
		P(a)	0.00	13.00	P(a)	25,000.00	1,248,000.00
		A	0.00	0.00	A	25,550.00	36,500.00
Sistemas instalados para ingeniería y desarrollo de la refrigeración y climatización con energía solar	Sistemas	P		75.00	P		750,000.00
		P(a)	0.00	75.00	P(a)	27,000.00	750,000.00
		A	0.00	0.00	A	27,125.00	38,750.00
Sistemas fotovoltaicos instalados para la implementación de sistemas productivos en zonas rurales	Sistemas	P	750.00	750.00	P	100,000.00	1,500,000.00
		P(a)	0.00	300.00	P(a)	0.00	1,500,000.00
		A	0.00	0.00	A	0.00	0.00
Procedimiento para la conformidad de normativas de eficiencia energética, elaborado	Estudio	P		1.00	P		50,000.00
		P(a)		1.00	P(a)	25,000.00	50,000.00
		A		1.00	A	0.00	25,000.00
Estudio para el desarrollo de política, programa nacional y anteproyecto de ley de eficiencia energética, elaborado	Estudio	P		1.00	P		209,000.00
		P(a)		1.00	P(a)		208,500.00
		A		1.00	A		208,500.00
Fortalecida la capacidad en materia de eficiencia energética en áreas: eléctrica, térmica, aire comprimido y procesos industriales; funcionarios capacitados	Funcionarios	P		3.00	P		101,000.00
		P(a)	3.00	3.00	P(a)	101,500.00	101,500.00
		A	0.00	0.00	A	14,300.00	14,300.00

6. Refuerzo sistema transmision zonas rurales		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2015	EOP		2015	EOP
Lineas de transmision, construidas	Kilómetros	P	288.00	621.00	P	40,000,000.00	108,058,000.00
		P(a)	46.00	553.00	P(a)	15,750,000.00	127,780,959.00
		A	0.00	0.00	A	3,587,287.00	32,255,702.00
Subestaciones ampliadas	MVA	P	100.00	432.50	P	20,000,000.00	59,083,000.00
		P(a)	230.00	433.00	P(a)	5,250,000.00	42,260,319.00
		A	0.00	0.00	A	1,195,000.00	10,417,805.00
Lote de equipo de mantenimiento y operacion, adquirido y en funcionamiento	Lote	P		1.00	P		2,123,000.00
		P(a)		1.00	P(a)		2,123,103.00
		A		1.00	A		2,123,103.00
7. Sostenibilidad sistema aislados ENEL		Physical Progress			Financial Progress		
Outputs	Unit of Measure		2015	EOP		2015	EOP
Agencias de ENEL conectadas al Sistema de Gestión Comercial	Agencias	P	14.00	28.00	P	600,000.00	2,519,830.00
		P(a)	10.00	18.00	P(a)	1,440,000.00	2,437,289.00
		A	0.00	0.00	A	0.00	875,242.00
Capacidad/Potencia de energía renovable evaluada	kW	P	3,500.00	3,500.00	P	115,000.00	770,000.00
		P(a)	0.00	3,500.00	P(a)	215,000.00	579,884.00
		A	0.00	0.00	A	67,000.00	361,944.00
Comunidades aisladas con estudios de potencial de energía renovable	Comunidades	P	20.00	20.00	P	100,000.00	400,000.00
		P(a)	0.00	20.00	P(a)	0.00	0.00
		A	0.00	0.00	A		0.00

Capacidad/Potencia de energía renovable instalada	kW	P	0.00	1,300.00	P	2,000,000.00	5,698,000.00
		P(a)	0.00	982.00	P(a)	140,000.00	6,291,197.00
		A	0.00	0.00	A	0.00	0.00

Other Cost			2015	Cost
Administración Componente 1	P		\$1,483,000.00	\$5,393,720.00
	P(a)		\$2,670,000.00	\$8,604,110.00
	A		\$1,220,946.00	\$7,152,890.00
Administración del componente 6	P		\$1,500,000.00	\$5,451,675.00
	P(a)		\$3,044,000.00	\$14,571,618.00
	A		\$690,693.00	\$5,428,579.00
Gastos Financieros - Componentes 1, 2 y 6 (ENATREL)	P		\$4,500,000.00	\$15,925,085.00
	P(a)		\$2,700,000.00	\$15,892,877.00
	A		\$0.00	\$4,877,555.00
Gastos financieros componente 7	P		\$60,000.00	\$214,751.00
	P(a)		\$30,000.00	\$191,000.00
	A		\$0.00	\$89,651.00
Administración del componente 7	P		\$25,000.00	\$101,000.00
	P(a)		\$82,700.00	\$285,494.00
	A		\$31,183.00	\$121,636.00
Administracion Componente 2	P		\$794,000.00	\$2,543,000.00
	P(a)		\$668,000.00	\$2,316,176.00
	A		\$339,930.00	\$1,647,495.00
Administracion Componente 3	P		\$514,000.00	\$1,612,000.00
	P(a)		\$148,000.00	\$1,600,000.00
	A		\$100,777.00	\$224,472.00
Administracion Componente 4	P		\$500,000.00	\$1,784,000.00
	P(a)		\$93,000.00	\$1,958,988.00
	A		\$25,843.00	\$225,497.00
Administracion Componente 5	P		\$700,000.00	\$2,267,000.00
	P(a)		\$340,000.00	\$2,352,030.00
	A		\$33,673.00	\$318,065.00
Gastos financieros - Componentes 3, 4 y 5 (MEM)	P		\$375,000.00	\$1,763,000.00
	P(a)		\$350,000.00	\$1,927,011.00
	A		\$0.00	\$452,811.00
Total Cost			2015	Total Cost
	P		\$135,044,000.00	\$423,495,868.00
	P(a)		\$77,649,200.00	\$384,264,858.00
	A		\$23,532,374.00	\$143,088,508.00

Changes to the Matrix

No information related to this operation.

Please note that the Overall Stage represents the stage of the operation at the time of this report's publication, which might not necessarily match the stage of the operation during the PMR Cycle to which the report pertains.