Instituto Nicaragüense de Energía

# Rate Regulation in Nicaragua

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# RATE SCHEDULE
# JULY 2008

# NEW JULY 2008 SCHEDULE

- Distributor Value Added (DVA) Review
- High Voltage Mean Transportation Cost (MTC) Review
- Market structure change in 2007

# DISTRIBUTOR VALUE ADDED (DVA)

- The New Replacement Value (NRV) approved in July 2007 included deductions for Government and Third-Party investments in the 2001-2003 period in the amount of US$12.5 million. As of July 2008, additional US$10.5 million (already adjusted by INE to Dec 2003 prices) are deducted, accounting for Government and Third-Party investments in the 2004-2005 period.
- Thus, replacements amounting to total value of these investments are subtracted from the July 2008 DVA.
- The June 2008 DVA value of US$48.02162 /MWh is thus reduced to US$47.23768/MWh.

# Mean Transportation Cost (MTC)

- For the Schedule to be approved there will be no variations in Mean Transportation Cost
- The Mean Transportation Cost approved in July 2007 is US$5.15774/MWh

# Distribution Value Added and Mean Transportation Cost

| CONCEPTOS | Dic.-2003 * | Junio 08 | Julio 08 |
|---|---|---|---|
| IPM | 144.5 | 167.4 | 167.4 |
| FEn = | 184.3 | 208.49 | 208.49 |
| | | 0.003 | 0.003 |
| $IACTn = 0.67 x IPM_n/IPM_0 + 0.33 x IPC_n/IPC_0$ | | 1.14649355 | 1.14649355 |
| **VAD TOTAL US$ MWH** | **41.20188** | **48.02162** | **47.23768** |
| VAD DISTRIBUCIÓN US$/MWH | 30.61002 | 35.78177 | 35.09419 |
| VAD AP US$/MWH | 4.57047 | 5.33637 | 5.24002 |
| VAD COMERCIALIZACIÓN US$/MWH | 6.02138 | 6.90347 | 6.90347 |
| | | | |
| **PEAJE AT US$/MWh** | **4.6654** | **5.1577** | **5.1577** |

* Fuente: Estudio de Racionalización de Tarifas y Subsidios de Energía Eléctrica en Nicaragua (P.A. Consulting)

# AVERAGE RATE PRICE

It is the energy unit value made up of energy/power input and transmission service costs, and distribution activity compensation

This value considers:

- Wholesale purchase price and deviations
- Transportation services
- Cost of losses
- Distribution Value Added

| COMPOSICION DEL PRECIO PROMEDIO TARIFARIO (US$/MWh) | |
|---|---|
| **Conceptos** | **P.Prom Julio 2008** |
| **Total precio monómico de abastecimiento en MT** | **140.07880** |
| **Costo medio de transporte en MT** | **5.15774** |
| **Total suministro en barras de MT** | **145.23653** |
| **Total pérdidas reconocidas** | **17.42838** |
| **Factor pérdidas reconocidas** | **1.12** |
| **Total suministro en MT despúes de pérdidas** | **162.66492** |
| **Costo de distrib. + AP + Comerc. Reconocido** | **47.23768** |
| VAD de distribución reconocido | 35.09419 |
| VAD de AP reconocido | 5.24002 |
| VAD de Comercialización reconocido | 6.90347 |
| **Precio promedio global de venta** | **209.90260** |

# MARKET STRUCTURE

- A market structure review
- Opening consumption blocks in residential rate to clearly identify subsidies.
- Eliminating commercial charge discrimination.
- Projecting consumption and number of customers to compute expected revenue from billings

# MARKET STRUCTURE

CONCERNING:

- The ratio of consumption and number of customers in each rate charge to total consumption and number of customers over a particular period of time

- Determining load factors, which relate monthly energy consumption in each rate class, peak demand, and a 730-hour time period in the month

# MARKET STRUCTURE

- As a market structure element, the share of rate charges in the average rate price previously approved by INE, and related to these charges, is included

- The market structure contains the constant factors and parameters allowing distribution of projections for consumption, number of customers, and peak demand

- This market structure will be analyzed periodically trying to find an adequate average price

# MARKET STRUCTURE CHANGE

- INE determined a market structure based on actual data for the last 12 months (June 2007 – May 2008).

MARKET STRUCTURES

# JULY 2008 RATE SCHEDULE

In order to decrease a rate change impact on the following sectors,

- Residences, with 620,642 customers
- Churches, with 1,749 customers

The proposal is: JULY 2008 RATE SCHEDULE

# PRICE IMPACT OF A CHANGE IN STRUCTURE

Applying the proposed JULY 2008 rate to market projection for the July 2008-June 2009 period, distributed according to selected structure, a simulated revenue is obtained to generate an average US$0.209903/kWh price.

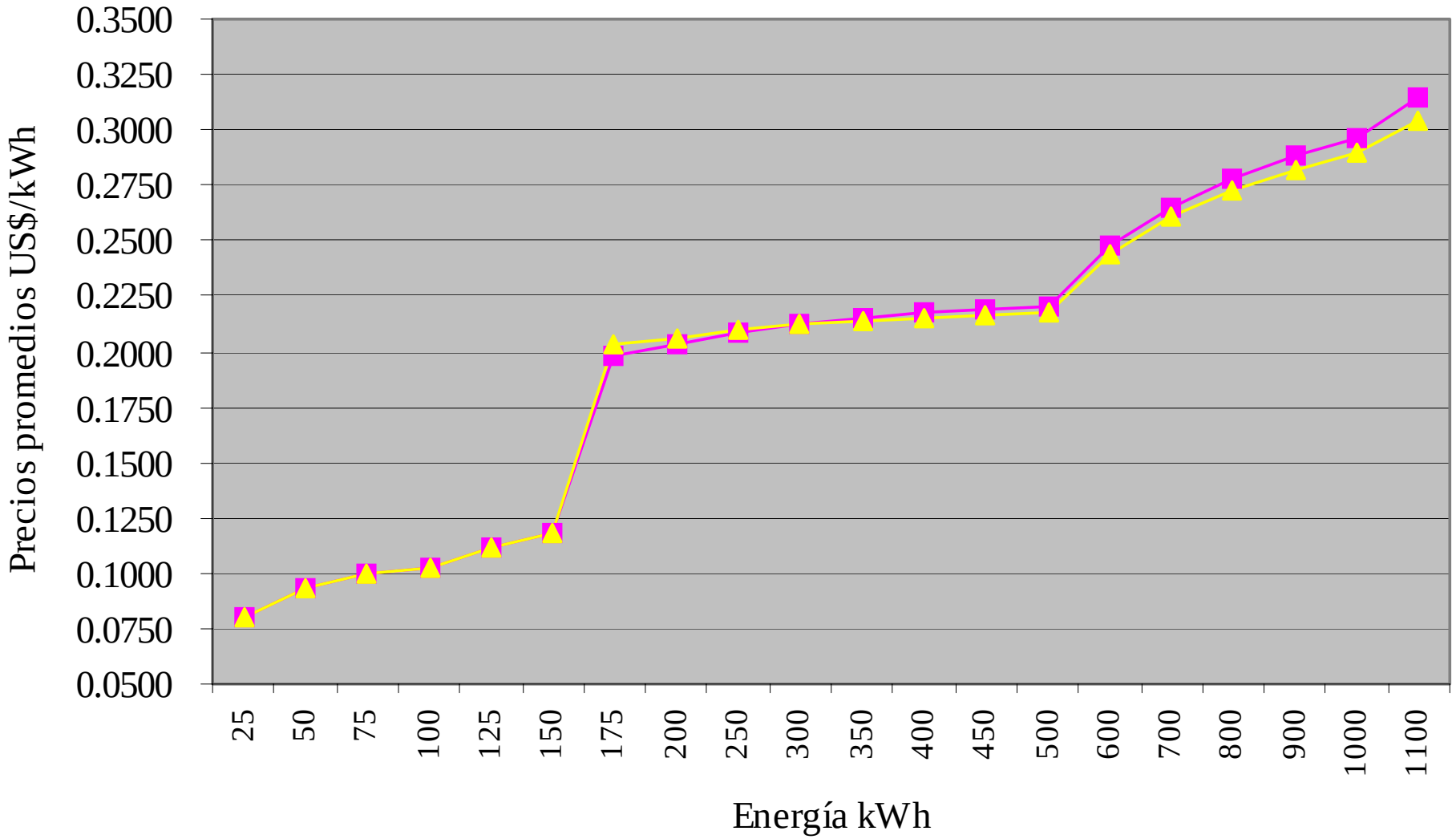
REVENUE SIMULATION WITH JULY 2008 RATE AND CONSUMPTION AND CUSTOMERS IN JUL 08-JUN 09 PERIOD

# PRICE IMPACT OF A CHANGE IN STRUCTURE

In comparing the proposed July 2008 rate to the rate in force in June 2008 the approved average price goes from US$ 208.11 to US$209.90 per MWh.

RATE IN FORCE IN JUNE 2008 vs. JULY 2008 RATE

## Comparación propuesta tarifa residencial

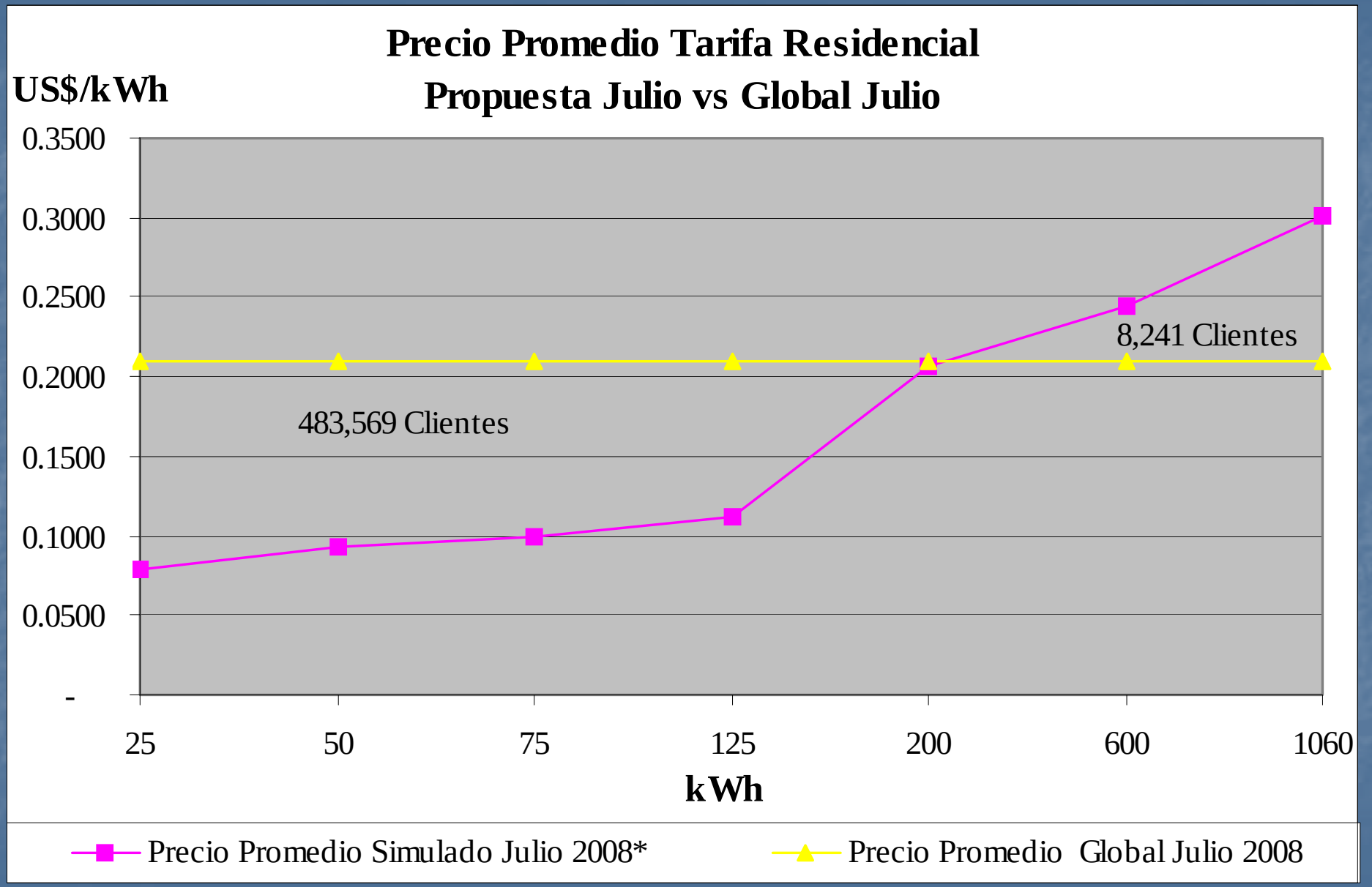


# Comparison of Current Rate Average Price vs Global

Who pays more and who pays less of the current rate system average price?

JUNIO 08 AVERAGE PRICE vs JUNE GLOBAL AVERAGE PRICE

JULY AVERAGE PRICE vs JULY GLOBAL AVERAGE PRICE


Precio Promedio Tarifa Residencial
Propuesta Julio vs Global Julio
US$/kWh
0.3500
0.3000
0.2500
0.2000
0.1500
0.1000
0.0500
-
483,569 Clientes
8,241 Clientes
25
50
75
125
200
600
1060
kWh
Precio Promedio Simulado Julio 2008*
Precio Promedio Global Julio 2008