

NYPA Energy Only Class Rate Design

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Input Section I (NYPA Energy Only)

1. From Cost of Service Study:

Primary Distribution	\$ 110,553,780	% Total	65.3146%
Secondary Distribution	\$ 40,538,202		23.9476%
Cost. Cont. (Exclude Street Lighting)	\$ 18,175,875		10.7378%
	\$ 169,278,857		100.0000%

2. Transmission Revenues at 64100 Level Before EDB: Price-Outs

	SUMMER	WINTER	ANNUAL
NYPA Energy Only	\$ 416,778	\$ 1,016,680	\$ 1,433,468

3. Distribution Revenues at 40102 Level Before EDB: Price-Outs

	SUMMER	WINTER	ANNUAL
NYPA Energy Only	\$ 1,511,126	\$ 3,686,243	\$ 5,197,369

3C. Allocation of Distribution Revenue (39) based on Cost of Service Study %

Primary Distribution	\$ 65,314,66%	Allocation of \$3,197,369
Secondary Distribution	\$ 23,947,6%	\$ 3,394,841
Customer Cost	\$ 10,737,8%	\$ 1,244,645
		\$ 658,083
		\$ 6,197,369

3d. Breakdown of Total Primary Distribution Costs based on Data provided by ECOS Group:

% Substation	33.01%	Allocation of \$3,394,841
% Primary	66.99%	\$ 1,120,571
		\$ 2,274,070
		\$ 3,194,641

3e. % Substation, Primary and Secondary Distribution Costs to be applied to the distribution seasonal differential

Substation	\$ 1,120,571	24.1600%
Primary	\$ 2,274,070	49.0177%
Secondary	\$ 1,244,645	28.8223%
	\$ 4,639,286	100.0001%

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4. Total T&D Revenues before EDG:

	SUMMER	WINTER	ANNUAL
NYPA Energy Only	1,927,904 \$	4,702,933 \$	6,630,837

5. Standby Customer Costs:

	TOTAL
TOTAL	\$ 669,089
Revenue Requirement for Transmission Contract and As-Used Charges:	\$ 1,433,468
Revenue Requirement for Substation Contract and As-Used Charge:	\$ 1,120,671
Revenue Requirement for Primary Distribution Contract and As-Used Charge:	\$ 2,274,070
Revenue Requirement for Secondary Distribution Contract and As-Used Charge:	\$ 1,244,845
Total Energy Only Standby Revenue Requirement:	\$ 6,630,837

6. Billing Determinants:

	SUMMER	WINTER	ANNUAL
Total Number of Bills	7,209	14,178	21,387
NYPA Energy Only	7,209	14,178	21,387
NYPA Energy Only	24,372,988	59,455,533	83,828,521
NYPA Energy Only	24,372,898	59,455,533	83,828,531

6a. Current SC2 Transmission and Distribution April 02, Page 20 of November 2001 MSC and MAC Billing Rates:

	Summer	Winter	Seasonal Differentials
Transmission			
All kWhrs \$	0.01710 \$	0.01710 \$	

Rate Design Equator

All kWhrs	X
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Distribution

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All kWhrs \$ 0.06200 \$ 0.06200 \$
 Rate Design Equation 0-900 Y Y

7. Information provided by Electric Engineering Department:

	% Contract	% As-Used
Transmission	0%	100%
Substation	0%	100%
Primary Distribution	50%	50%
Secondary Distribution	100%	0%

8. Development of Contract and As-Used Revenue Requirements (Before EDI) Based on the Above Percentages:

	Total Rev. Requirement (5a)	Contract Revenues	As-Used Revenues	Total
Transmission	\$ 1,433,468	\$ -	\$ 1,433,468	\$ 1,433,468
Substation	\$ 1,120,671	\$ -	\$ 1,120,671	\$ 1,120,671
Primary Distribution	\$ 2,274,070	\$ 1,137,035	\$ 1,137,035	\$ 2,274,070
Secondary Distribution	\$ 1,244,645	\$ 1,244,645	\$ -	\$ 1,244,645
Total Distribution	\$ 4,639,228	\$ 2,381,680	\$ 2,257,606	\$ 6,072,754

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NYPA Energy Only Standby Rate Design
Applicable to NYPA Energy Only Classes

A. Development Of Standby Customer Charge:

NYPA Energy Only Classes	<u>Customer Costs (a)</u>		<u>Number of Bills</u>	<u>Customer Charge</u>	
	\$	568,083	21,387	\$	26.09
	<u>Substation Costs otherwise recoverable in contract charge (b)</u>				
	\$	-	21,387	\$	-
	<u>Primary Distribution Costs otherwise recoverable in contract charge (c)</u>				
	\$	1,137,036	21,387	\$	53.16
	<u>Secondary Distribution Costs otherwise recoverable in contract charge (d)</u>				
	\$	1,244,645	21,387	\$	58.20
NYPA Energy Only	<u>Total Customer Costs including Local Distribution Costs otherwise recoverable in contract charge (a)-(b)-(c)-(d)</u>				\$ 137.45
NYPA Energy Only	<u>Local Transmission Costs otherwise recoverable in contract charge</u>				
	\$	-	<u>Number of Bills</u>	<u>Customer Charge</u>	
			21,387	\$	-

B. Development of Transmission As-Used Charge, Per kWhr

Calculation of Seasonal and Block Differentials in current rates to be used in Rate Design Equations:

	Summer		Winter		Seasonal Differential	Block Differential	Seasonal Plus Block
All kWhrs	\$	0.01710	\$	0.01710			

% As-Used	100%		
	Reflecting % As-Used		
	<u>Seasonal Differential</u>	<u>Block Differential</u>	<u>Seasonal Plus Block</u>
All kWhrs	\$	\$	\$

Rate Design Equation

Transmission As-Used Revenue:	Sum kWhr	24,372,998	+ X + 0.00000
	Win kWhr	59,455,533	- X + 0.00000

Design of Transmission As-Used Charge, Per kWhr:

<u>Transmission Related As-Used Revenue Requirement (Before FRB):</u>					\$ 1,433,468
(Input Section, (8))					
\$	1,433,468 =	24,372,998 X+	59,455,533 X+		
\$	1,433,468 =	83,828,531 X			
	X =	\$ 0.01710 Per kWhr			

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NYPA Energy Only Proposed Standby Transmission As-Used Charge

kWhr Block	Summer	Winter
All kWhr	\$ 0.01710	\$ 0.01710

C. Development of Substation As-Used Charge, Per kWhr

Calculation of Seasonal and Block Differentials in current rates to be used in Rate Design Equations:

All kWhrs \$	Summer	Winter	Seasonal Differential	Block Differential	Seasonal Plus Block
	0.06200	\$ 0.06200			

% Substation	24.1540%
% As-Used	100%
Reflecting % Substation and % As-Used	
Seasonal Differential	Block Differential
Seasonal Plus Block	
All kWhrs \$	\$

Rate Design Equation

Distribution As-Used Revenue=	Summer kWhr	24,372,998	- Y
	Winter kWhr	59,455,533	- Y

Design of Substation As-Used Charge, Per kWhr:

Distribution Related As-Used Revenue Requirement (Before EDB):
(Input Section, (B)) \$ 1,120,571

$$\begin{aligned}
 \$ 1,120,571 &= 24,372,998 \text{ Y} + 59,455,533 \text{ Y} \\
 &= 83,828,531 \text{ Y}
 \end{aligned}$$

$$\begin{aligned}
 \$ 1,120,571 &= Y \times \$ 0.01337 \text{ Per kWhr} \\
 Y &= \frac{1,120,571}{0.01337}
 \end{aligned}$$

NYPA ENERGY ONLY Proposed Standby Substation As-Used Charge

kWhr Block	Summer	Winter
All kWhr	\$ 0.01337	\$ 0.01337

D. Development of Primary Distribution As-Used Charge, Per kWhr

Calculation of Seasonal and Block Differentials in current rates to be used in Rate Design Equations:

All kWhrs \$	Summer	Winter	Seasonal Differential	Block Differential	Seasonal Plus Block
	0.06200	\$ 0.06200			

% Primary	49.0177%
% As-Used	50%
Reflecting % Primary and % As-Used	
Seasonal Differential	Block Differential
Seasonal Plus Block	
All kWhrs \$	\$

Rate Design Equation

Distribution As-Used Revenue=	Sum kWhr	24,372,998	- Y
	Win kWhr	59,455,533	- Y

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Design of Primary Distribution As-Used Charge, Per kWh:

Distribution Related As-Used Revenue Requirement (Before EDB): \$ 1,137,035
(Input Section, (8))

\$	1,137,035 =	24,372,998 Y+	-
		59,455,533 Y+	-
		- Y+	-
		- Y	-
\$	1,137,035 =	83,826,531	
	Y =	\$ 0.01356 Per kWh	

NYPA ENERGY ONLY Proposed Standby Primary Distribution As-Used Charge

kWhr Block	Summer	Winter
All kWhr	\$ 0.01356	\$ 0.01356

E. Development of Secondary Distribution As-Used Charge, Per kWhr

Calculation of Seasonal and Block Differentials in current rates to be used in Rate Design Equations:

	Summer	Winter	Seasonal Differential	Block Differential	Seasonal Plus Block
All kWhrs \$	0.06200	\$ 0.05200	\$		

% Secondary	26.8284%
% As-Used	0%
Reflecting % As-Used	
	Seasonal Differential
All kWhrs \$	\$ -
	Block Differential
	\$ -
	Seasonal Plus Block
	\$ -

Rate Design Equation

Distribution As-Used Revenue	Sum kWhr	24,372,998	* Y
	Win kWhr	59,455,533	* Y

Design of Secondary Distribution As-Used Charge, Per kWhr:

Distribution Related As-Used Revenue Requirement (Before EDB): \$ -
(Input Section, (8))

\$	- =	24,372,998 Y+	-
		59,455,533 Y+	-
\$	- =	83,826,531	
	Y =	\$ - Per kWhr	

NYPA ENERGY ONLY Proposed Standby Secondary Distribution As-Used Charge

kWhr Block	Summer	Winter
All kWhr	\$ -	\$ -

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F. NYPA Energy Only Standby Rate Priceout

<u>Summer</u>	<u>Rate</u>	<u>Bills or</u>		<u>Revenue</u>
		<u>Kilowatthours</u>		
Customer Charge including Distr. Cost	\$	137.45	7,209	\$ 980,877
Transmission Del. Charge	\$	-	7,209	\$ -
Total Customer Costs				\$ 980,877
Transmission As-Used Energy Charge				
kWhr	\$	0.01710	24,372,998	\$ 416,778
Substation As-Used Energy Charge				
kWhr	\$	0.01337	24,372,998	\$ 325,867
Primary Dist. As-Used Energy Charge				
kWhr	\$	0.01356	24,372,998	\$ 330,498
Secondary Dist. As-Used Energy Charge				
kWhr	\$	-	24,372,998	\$ -
Summer Standby Revenue				\$ 2,064,020
<u>Winter</u>	<u>Rate</u>	<u>Kilowatthours</u>		<u>Revenue</u>
Customer Charge including Distr. Cost	\$	137.45	14,178	\$ 1,948,766
Transmission Del. Charge	\$	-	-	\$ -
Total Customer Costs				\$ 1,948,766
Transmission As-Used Energy Charge				
All kWhr	\$	0.01710	59,455,533	\$ 1,016,690
Substation As-Used Energy Charge				
All kWhr	\$	0.01337	59,455,533	\$ 794,920
Primary Dist As-Used Energy Charge				
All kWhr	\$	0.01358	59,455,533	\$ 808,217
Secondary Dist As-Used Energy Charge				
All kWhr	\$	-	-	\$ -
Winter Standby Revenue				\$ 4,666,693
Total Standby Revenues				\$ 6,630,813
Total Target Standby Rev Req.				\$ 6,630,837
Variance				\$ (224)
% Variance				0.00%

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NYPA ENERGY ONLY
RATE SUMMARY

MONTHLY RATE:	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02
Including customer costs and local distribution costs otherwise recoverable in contract charge.						
Customer Charge:	\$ 137.45	\$ 137.45	\$ 137.45	\$ 137.45	\$ 137.45	\$ 137.45
MAC Charge:						
Including Local transmission costs otherwise recoverable in contract charge.						
Transmission Del. Charge	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
MAC Charge						
Monthly Transmission As-Used Energy Charge, Per kWhr:						
All kWhr	\$ 0.01710	\$ 0.01710	\$ 0.01710	\$ 0.01710	\$ 0.01710	\$ 0.01710
Monthly Substation As-Used Energy Charge, Per kWhr:						
All kWhr	\$ 0.01337	\$ 0.01337	\$ 0.01337	\$ 0.01337	\$ 0.01337	\$ 0.01337
Monthly Primary Distribution As-Used Energy Charge, Per kWhr:						
All kWhr	\$ 0.01356	\$ 0.01356	\$ 0.01356	\$ 0.01356	\$ 0.01356	\$ 0.01356
Sum of Substation and Primary As-Used Energy Charge, Per kWhr:						
All kWhr	\$ 0.02693	\$ 0.02693	\$ 0.02693	\$ 0.02693	\$ 0.02693	\$ 0.02693
Secondary As-Used Energy Charge, Per kWhr:						
All kWhr	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -