

ComEd RATE 18

STANDBY SERVICE

By

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APPLICABILITY

1) A customer who has installed their own facilities or is entitled to the output of an electric generation facility installed for their benefit but owned by a third party solely for financial or tax purposes, otherwise known as *Customer's Own Electric Generating Facilities (COEGF)*

or

2) A customer who uses another form of energy in the operation and wishes to use the ComEd's electric service as a back-up to that energy form.

Example: Normally using gas fired absorption chillers and having electric driven chillers as back-up.

APPLICABILITY

- Rate 18 can be applied only to “bundled” customers; those who buy electricity, transmission, and distribution from ComEd.
- Parallel operation are permitted only upon the written consent of the ComEd (Rider4) .
- Rider 4 provides for payment to the customer for electricity supplied back into the grid to ComEd provided the facility is a PURPA Qualified Facility (defined in 83 IL Administrative Code, Part 430).
- In addition to Rate 18 charges for Standby power, Supplemental power is charged under Rate 6, 6TE, 6T, or 6L.

RATE 6

GENERAL SERVICE

- Rate 6: For Customers <1000 kW
- Rate 6TE: For Customers <500 kW who want to Elect Time-of-Day
- Rate 6T: For Customers ≥ 500 kW must be Time-of-Day
- Rate 6L: For Customer ≥ 1000 kW and it is Time-of-Day



RATE 18 CHARGES

Monthly Customer Charge			
Only Standby Service	<u>Standby Capacity</u>	<u>Charge</u>	<u>Rider 21</u>
	>10,000 kW	\$524.61	\$337.50
	1,000-10,000 kW	\$344.39	\$4.50
	500-999 kW	\$137.93	\$4.50
	<500 kW	\$106.83	\$4.50
Both Standby and Supplemental Service are required	>10,000 kW	\$98	\$337.50
	< 10,000 kW	\$98	\$4.50
Required Facilities Charge			
Per kW of Standby Capacity		\$2.99	
Demand Charge			
Per kW of Maximum Demand for Standby Service			
		<u>Summer Months</u>	<u>All Other Months</u>
Firm Load	For the first 10,000 kW	\$15.16	\$13.41
	For all over 10,000 kW	\$6.29	\$6.03
Interruptible load	For the first 10,000 kW	\$0.70	\$0.14
	For all over 10,000 kW	\$0.79	\$0.16

BILLING DEFINITIONS

Same as for other Commercial Rates (6, 6TE, 6T, 6L)

- ***Billing Period (BP):***

1 month

- ***Energy Peak Periods (EPP):***

9:00 a.m. to 10:00 p.m.

Monday through Friday

Except on the observed holidays and the immediately preceding Monday or following Friday if considered a holiday.

- ***Demand Peak Periods (DPP):***

9:00 a.m. to 6:00 p.m.

Monday through Friday

Except on the observed holidays and the immediately preceding Monday or following Friday if considered a holiday.

METERS

- Meters measure demand and energy use and are based on the time-of-day.
- A customer is charged a monthly rental by ComEd for the cost of the meters.
- *Generator Meter (GM)* measures the output of customer's generator.
- *Main Meter (MM)* any meter(s) installed between ComEd and the customer; generally there is a demand meter, an "in" energy use meter, and an "out" energy use meter.

LOAD DEFINITIONS

- *Total Load (TL) =*
ComEd Supplied Load (MM) + Customer Supplied Load (GM)

- *Total Capability of Customer's Own Electric Generating Facilities* (TC_{COEGF}) =
Average of the 3 highest maximum Generator power levels (one maximum allowed per billing period) for the last consecutive 12 months.

The preceding quantities are considered at 30 minutes intervals.

LOAD DEFINITIONS

- *Demand Peak Period Load Factor (DPPLF)* =
DPP Standby energy use / (Maximum Demand for Standby Service * # hours in DPP)
- *Load Factor Adjustment (LFA)* =
DPPLF / 0.71(summer) *or* 0.75(winter)

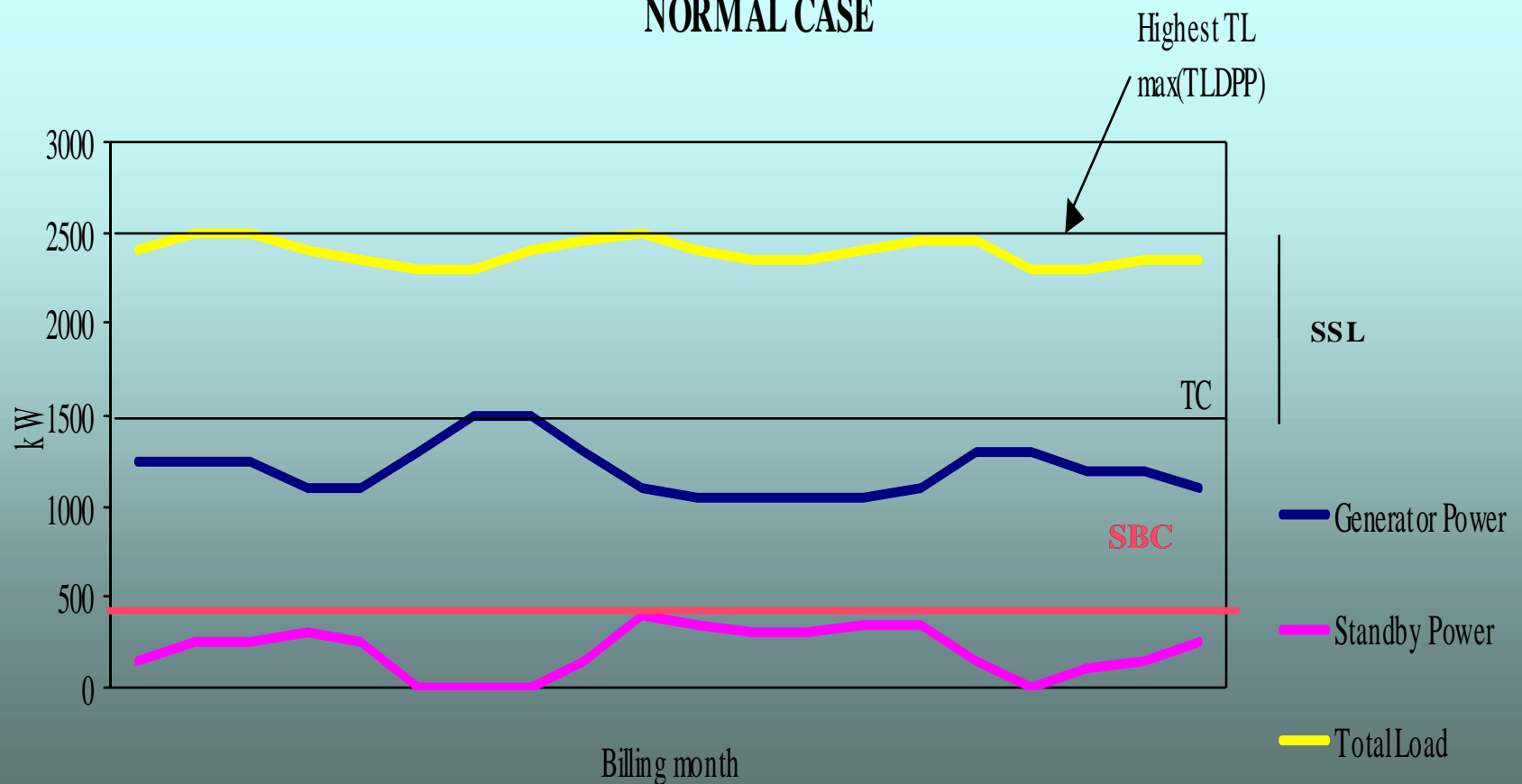
STANDBY AND SUPPLEMENTAL SERVICE DEMAND DEFINITIONS

- Supplemental Service Level (SSL)** = $[max(TL_{DPP}) - TC_{COEGF}]$
 Maximum Total Load during Demand Peak Periods - Total Capability of Customer's Own Electric Generating Facilities
- Demand Supplemental Service (DSS)** = $[min(MM_{Demand} \text{ or } SSL)]$
 Minimum of either - Main Meter Demand *or* Supplemental Service Level
- Demand Standby Service (DSBS)** = $[MM_{Demand} - SSL]$
 Main Meter Demand – Supplemental Service Level
 (if SSL is more than MM_{Demand} then 0)

The preceding quantities are considered at 30 minutes intervals for each Billing Period.

STANDBY AND SUPPLEMENTAL POWER

NORMAL CASE



MAXIMUM DEMAND

MAXIMUM DEMAND FOR STANDBY AND SUPPLEMENTAL SERVICE

* Based on 30 minute demand readings

Customers with Total Demand (SB+SS) >1,000 kW in 3 of the 12 months preceding the BP.

Others

$DSBS_{max}$ = Highest demand during DPP for Standby Service in BP

DSS_{max} = Highest demand during DPP Supplemental Service in BP

Maximum Demand for Standby Service ($DSBS_{max}$) = average 3 highest demand during DPP for Standby Service in BP (no more than 1 from any one day)

Maximum Demand for Supplemental Service (DBS_{max}) = average 3 highest demand during DPP for Supplemental Service in BP (no more than 1 from any one day)
(Used in lieu of that in Rate 6, 6TE, 6T, or 6L.)

STANDBY CAPACITY

■ *Standby Capacity (SBC)*

- Initially elected by customer and agreed to by ComEd.
- Less than Total Capability of Customers Own Electric Generating Facility. ($SBC \leq TC_{COEGF}$).
- If the Maximum Demand for Standby Service exceeds the established value for SBC, then SBC is increased to reflect the higher value. (If $DSBS_{max} > SBC$, then $SBC = DSBS_{max}$)
- It reflects the Maximum Demand for Standby Service incurred over the last 12 months. ($SBC = \text{Maximum } DSBS_{max} \text{ over 12 BPs}$).

REQUIRED FACILITIES CHARGE



- \$2.99 per kilowatt of Standby Capacity
- Performance based charge
- Can have a SIGNIFICANT BILLING IMPACT
 - Unplanned use of Standby power (unscheduled customer generator outages) increases the Standby Capacity to reflect the higher Standby Demand level.
 - The Required Facilities Charge will always reflect the highest Standby Demand in any 12 month period.

MONTHLY CHARGES

■ *Standby Charges*

- *Monthly Customer Charge* =
Determined by Standby Capacity Level (Standby Only)
or \$98 (if Supplemental Service is provided)
- *Standby Demand Charge* = $(SBD\$ * DSBS_{max} * LFA)$
Standby Demand Charge [(Summer or Other) and
(Firm or Interruptable)] * Maximum Demand for
Standby Service * Load Factor Adjustment
- *Standby Energy Charge* = $(SBECS\$ * SBE)$
Standby Energy Charge (Peak or Off Peak) * Standby
Energy Usage

MONTHLY CHARGES

■ *General Service Charges*

- Supplemental Service Charges (*Rate 6, 6TE, 6T, or 6L*) are added to Standby Charges (*Rate 18*) for total energy and demand charges.
- ***Rider 21: Renewable Energy Resources and Coal Technology and Energy Assistance Charge for Supplemental Low-Income Energy Assistance Fund*** is included in Customer Charge on all bills

MONTHLY CHARGES

Impact of Generator Performance on Monthly Billing

■ Original Contract

- SBC = 400 kW
- $TL_{max} = 2,500$ kW
- TC = 1,500 kW
- $SSL = 2,500 - 1,500 = 1,000$ kW

■ If $MM_{max} = 1,200$ kW then

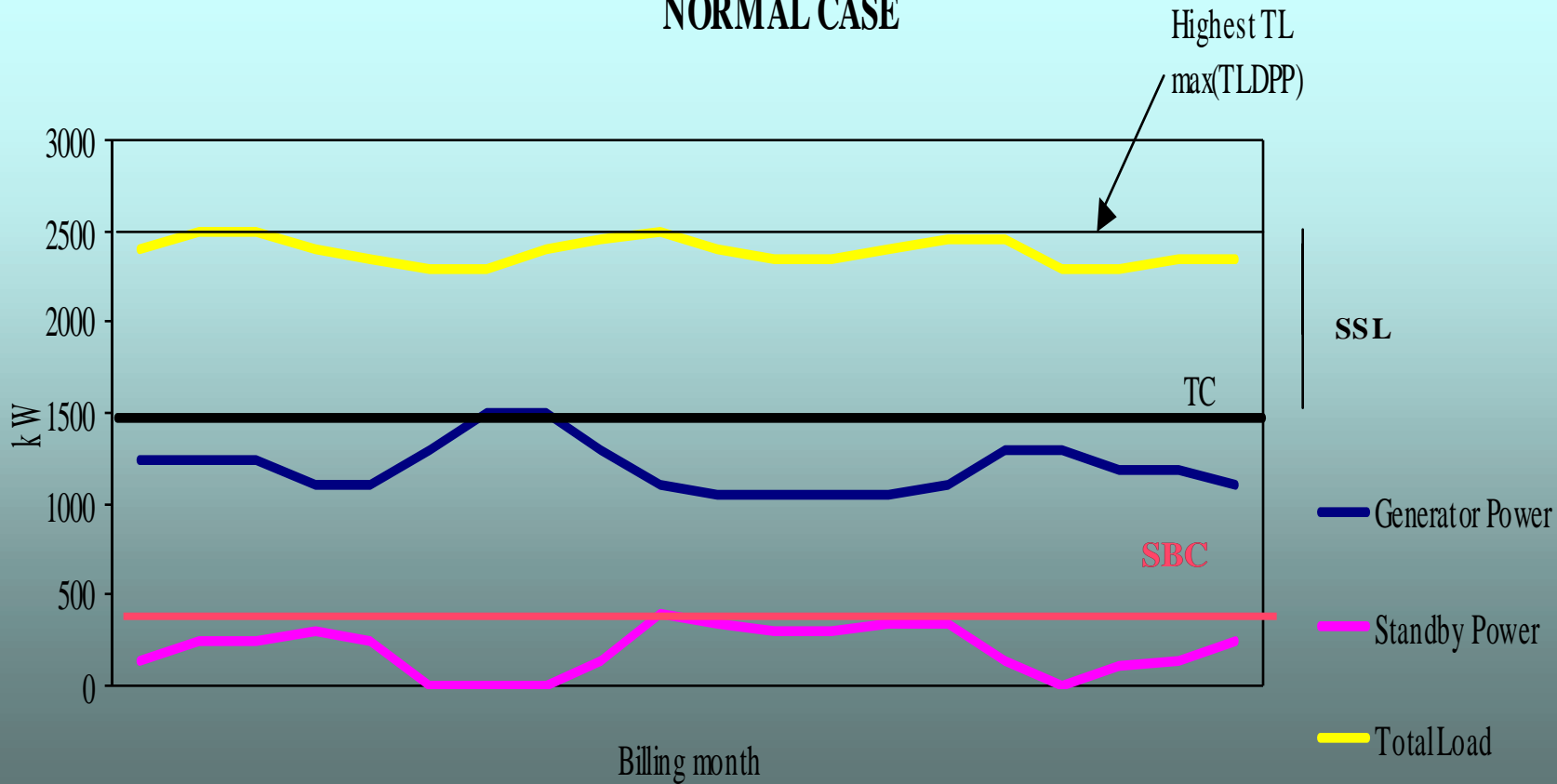
- $DSBS = MM_{max} - SSL = 1,200 - 1,000 = 200$ kW
- SBC remains at 400 kW because $DSBS < SBC$
(200 kW < 400 kW)

■ Then required Facility Charge would be:

$$\$2.99 * 400 \text{ kW} = \$1196$$

STANDBY AND SUPPLEMENTAL POWER

NORMAL CASE



MONTHLY CHARGES

- If $TL = 2,400$ kW and generator shuts down ($GM=0$ kW)
 - $DSBS = 2,400 - 1,000 = 1,400$ kW
 - SBC would be increased to 1,400 kW from 400 kW

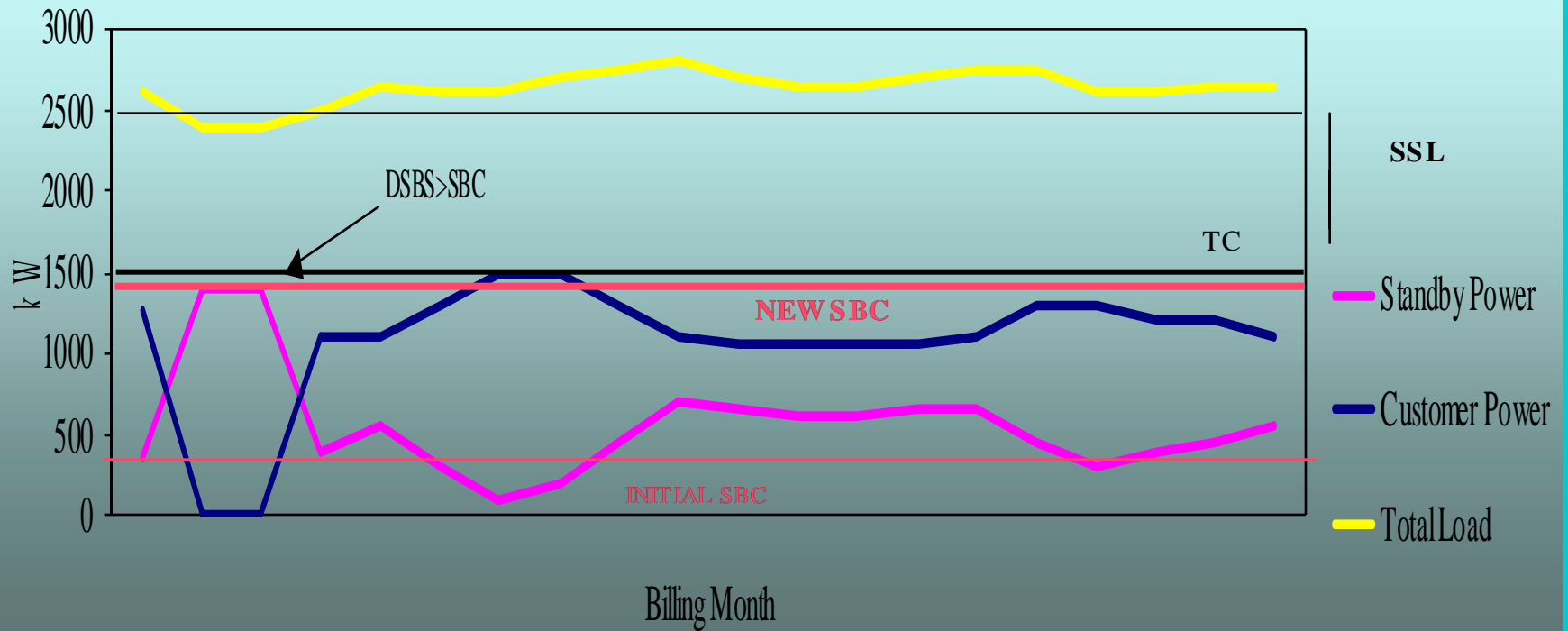
- Required Facilities Charge
 - $\$2.99 * 1,400 = \$4,186$

- Difference is:
 - $\$4,186 - \$1,196 = \$2,990$ per BP
 - For 12 months = $\$35,880$

- Obviously the Demand Charge and Energy Charge shall increase for the current BP and other surcharges could derive from the application of rate6/6L

UNPLANNED OUTAGE

THE WORST CASE



MAINTENANCE POWER SERVICE

- **WHEN?** During the scheduled maintenance period of COEGF.
- **HOW LONG?** No more than 42 days containing PP each year.
- **HOW MUCH?** Not to exceed the level of Standby Capacity
- **COST?** Cost of Standby Service; during Spring and Fall there is a 50% reduction in demand charges.
- Written preliminary schedule is required.

CONCLUSIONS

- If the performance of your generator is high, therefore Standby Service low, it will be beneficial to be under Rate 18.
- If your generator operates lower than its designated capability, or in the worst case it experiences an unplanned outage, even for a very short period, Standby Capacity will be adversely impacted and ComEd charges will be escalated for at least 12 months. This can offset any financial benefits to providing your own power.