

# **AMERICAN ELECTRIC POWER**

## **DATA ANALYSIS**

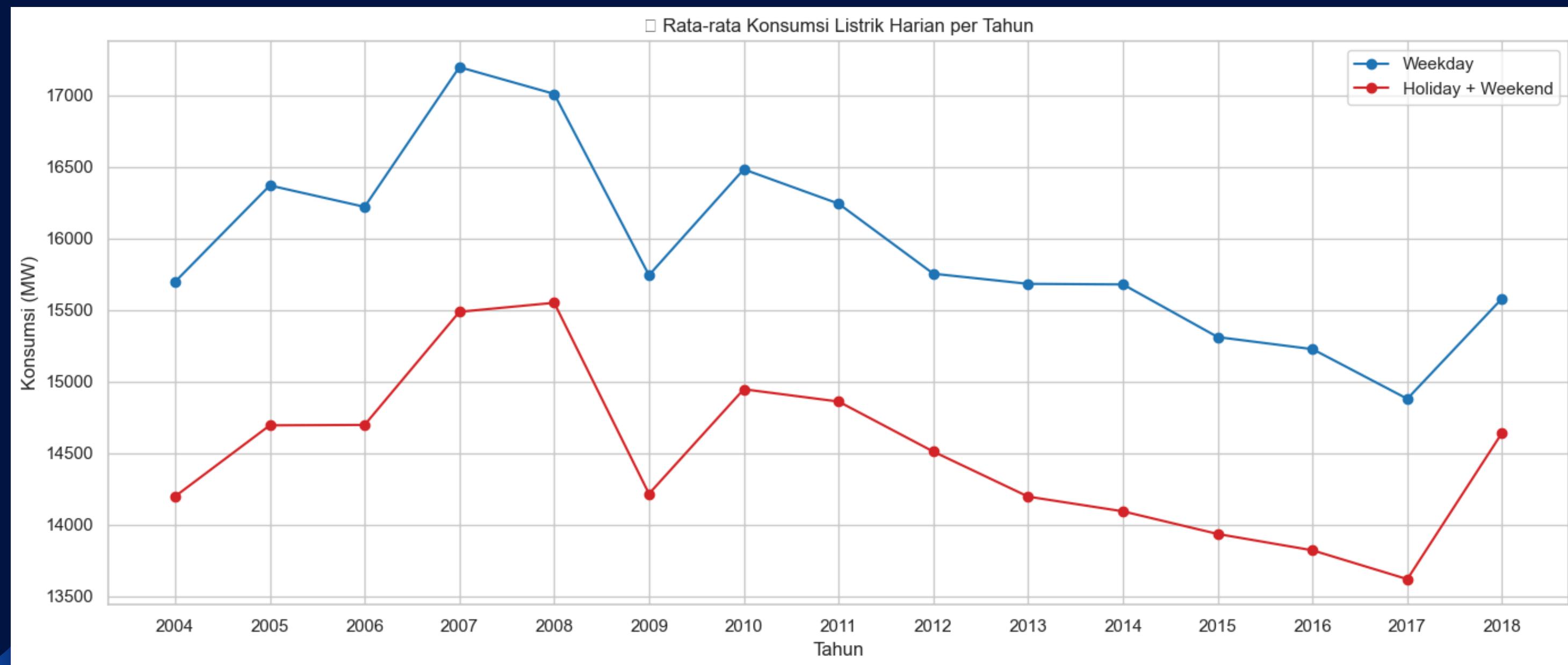
**Optimizing Electricity  
Distribution Through  
Data-Driven Scheduling**

by Alice Shizuka

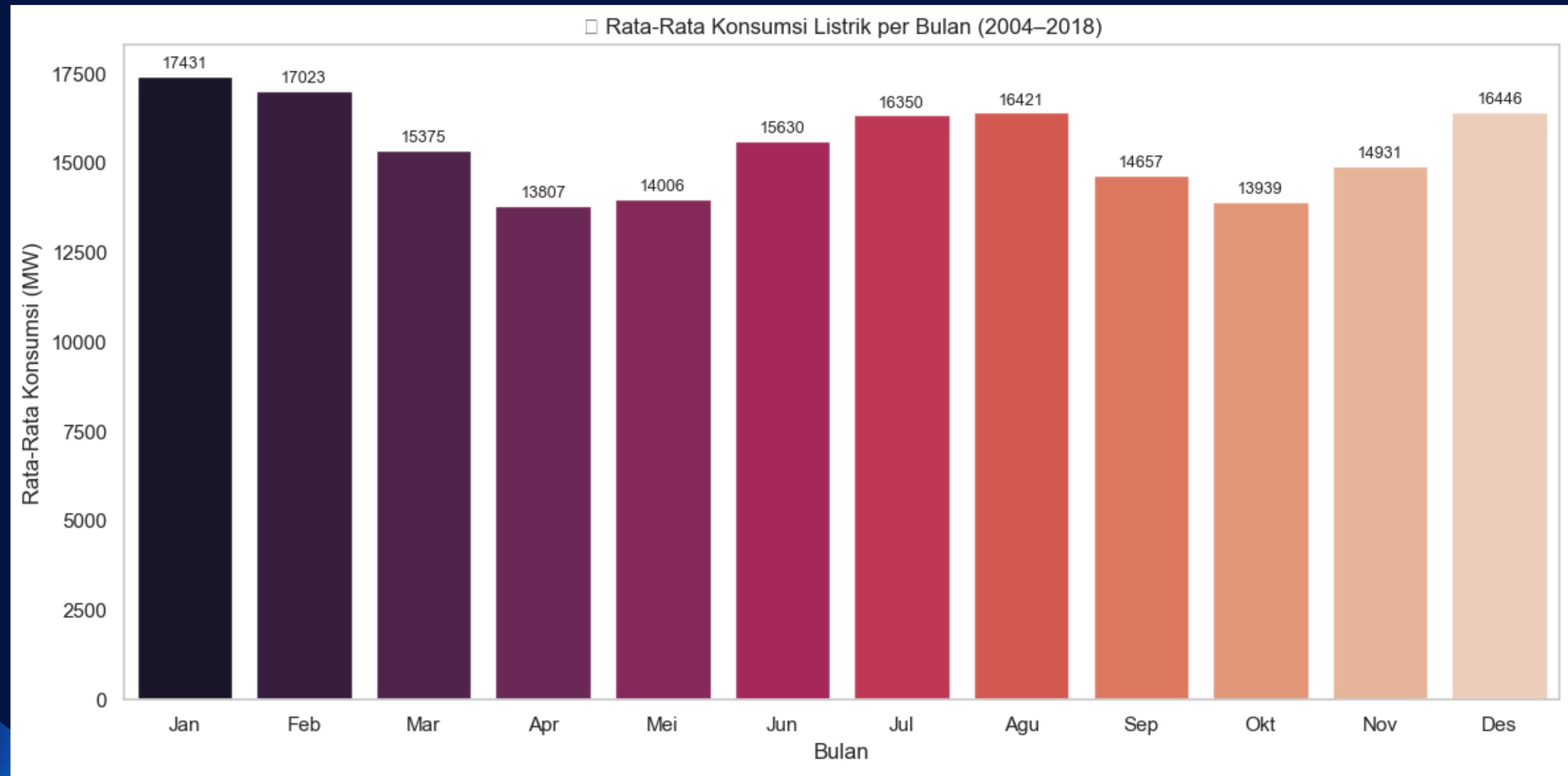


# CONDITION

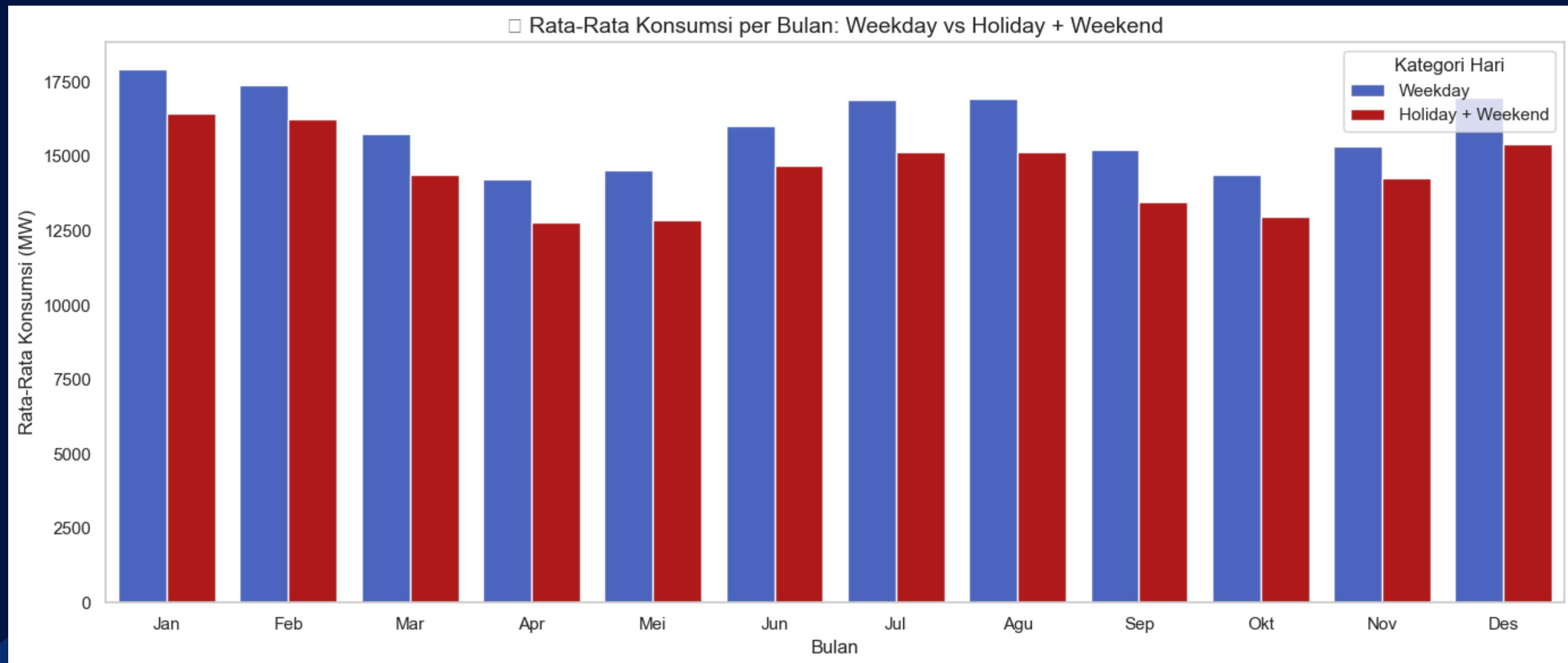
Setiap hari, AEP harus menyalurkan listrik ke jutaan pelanggan. Tapi pola kebutuhan listrik itu tidak merata.



# RATA-RATA KONSUMSI PERBULAN



# PERBANDINGAN PEMAKAIAN LISTRIK PER- KATEGORI





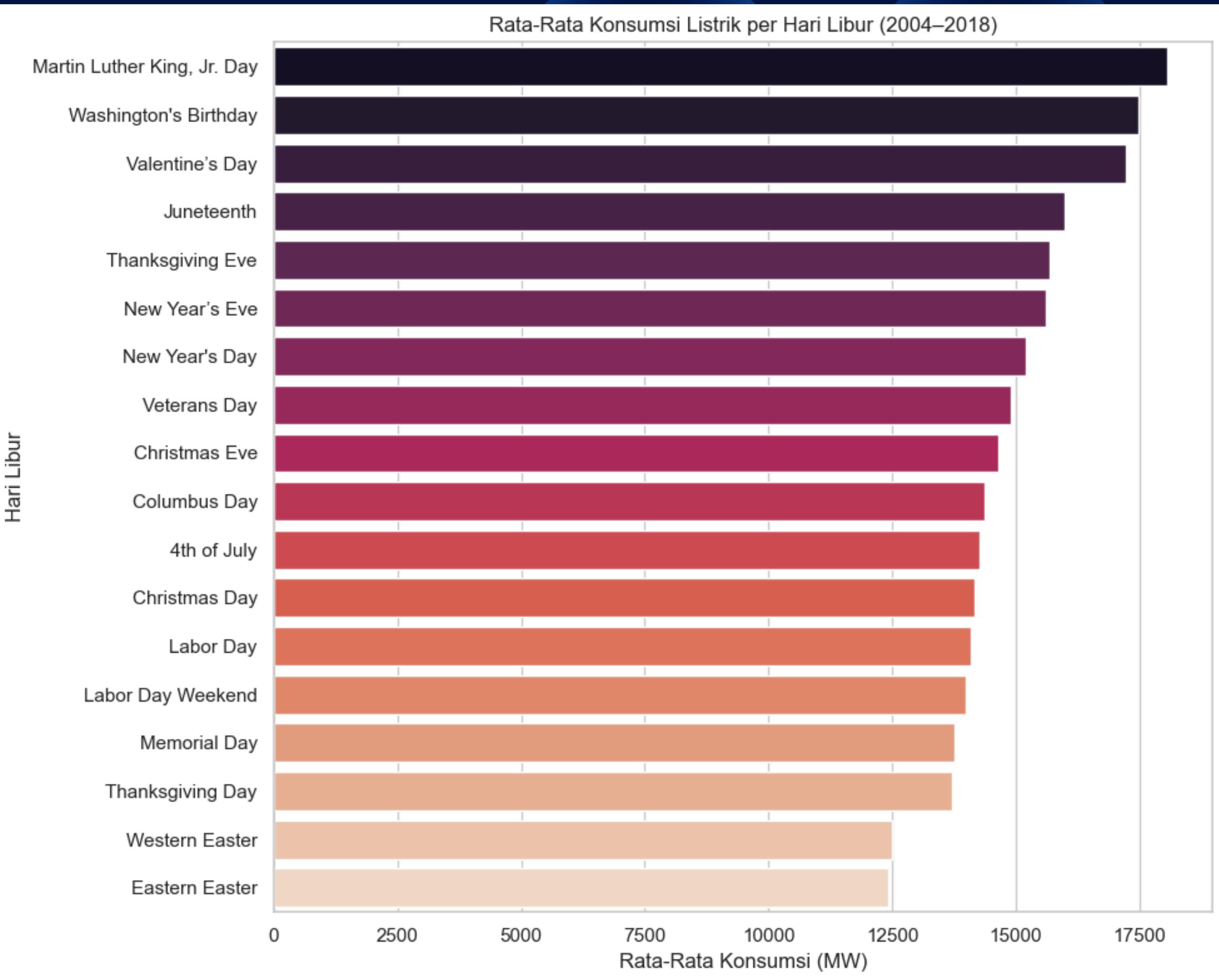
# TANTANGAN OPERATIONAL & MAINTENANCE

Kapan waktu yang tepat untuk melakukan pemeliharaan?  
Harus efisien, tidak ganggu layanan, dan  
tidak buang-buang kapasitas.

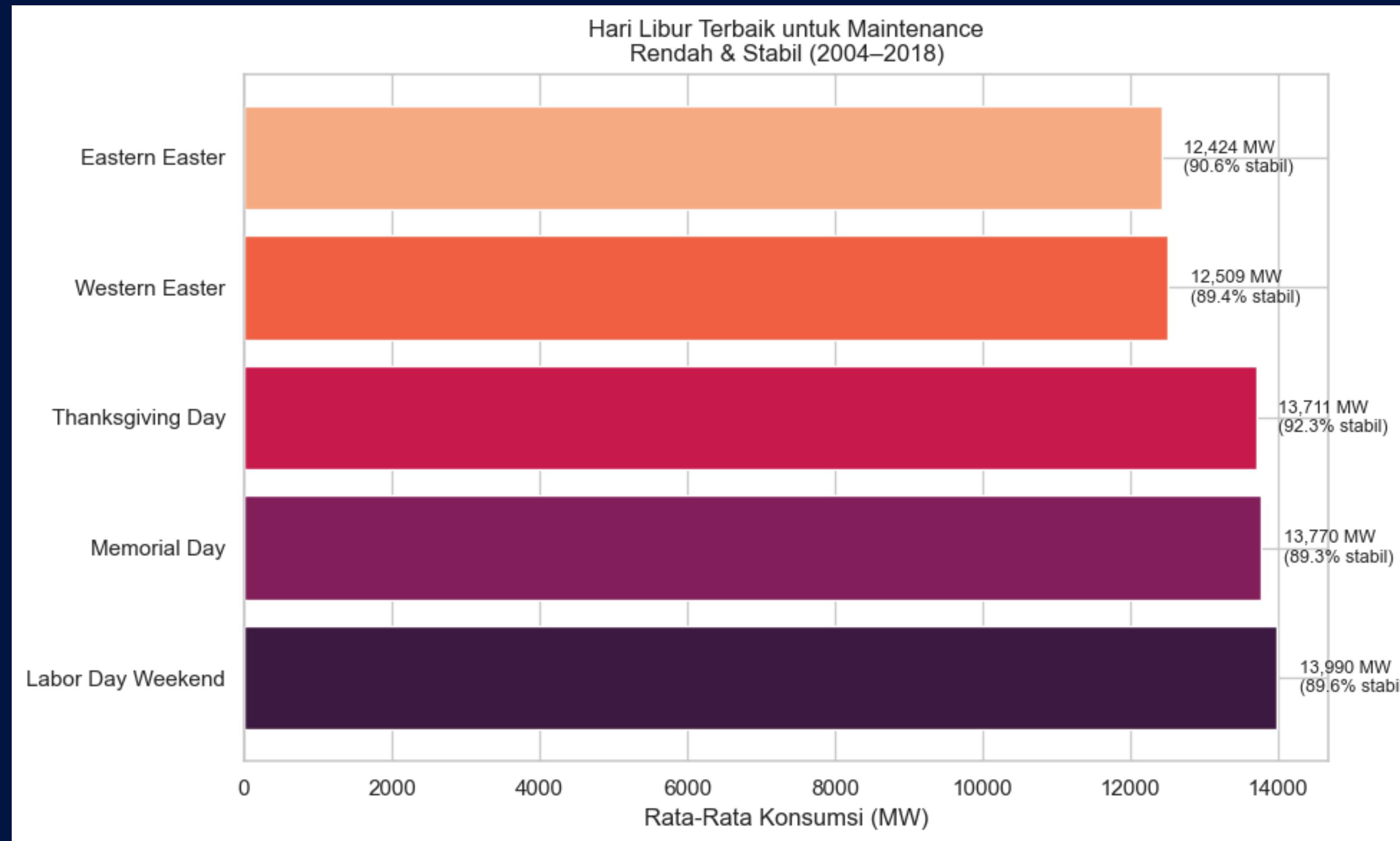


# MENGOPTIMALKAN DISTRIBUSI LISTRIK SAAT HOLIDAY SEASON

FOR  
MAINTANANCE

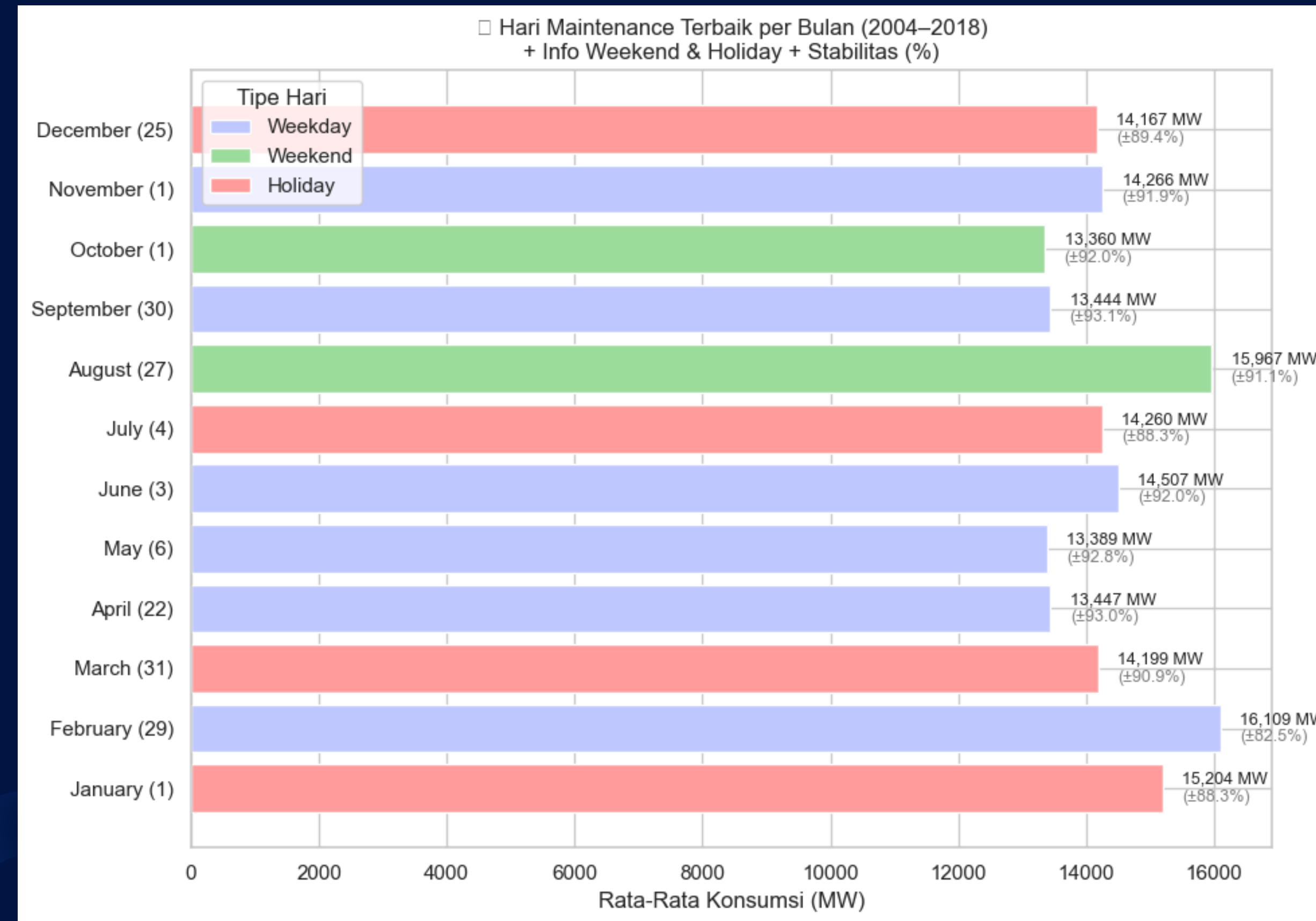


# ④ TOP 5 BEST HOLIDAY DAY FOR MAINTANANCE



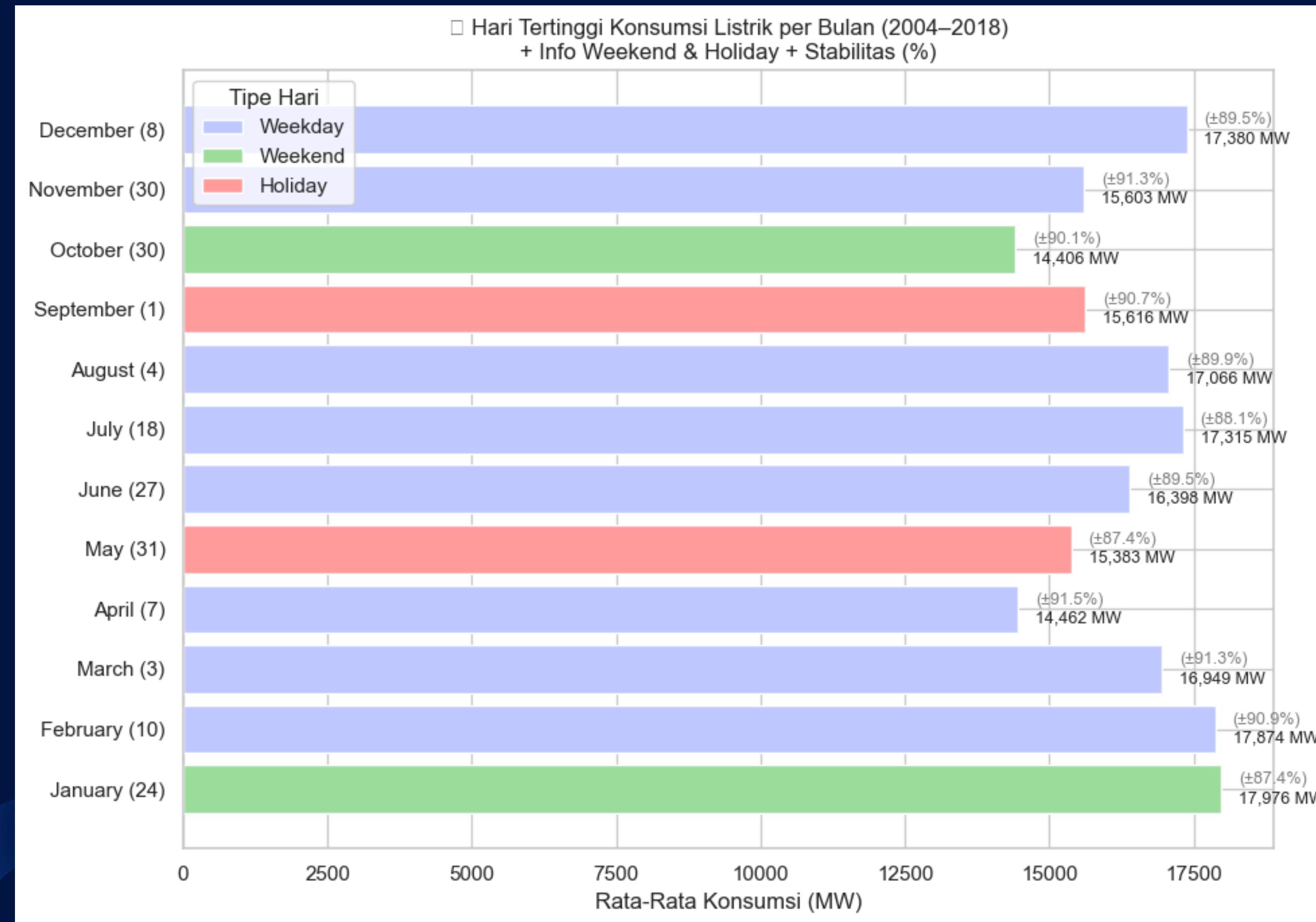


# BEST MAINTANANCE DAY EVERY MONTH





# BEST OPTIMIZING DAY EVERY MONTH



# PERCENT OPTIMIZING IN MAINTANANCE DAY

Perbandingan Konsumsi Listrik Optimal vs Maintenance

Maintenance_Date	Optimal_Consumption_MW	Maintenance_Consumption_MW	MW_Reduction	%_Reduction
1 January	17976	15204	2772	15.42
29 February	17874	16109	1765	9.87
31 March	16949	14199	2750	16.23
22 April	14462	13447	1015	7.02
6 May	15383	13389	1994	12.96
3 June	16398	14507	1891	11.53
4 July	17315	14260	3055	17.64
27 August	17066	15967	1099	6.44
30 September	15616	13444	2172	13.91
1 October	14406	13360	1046	7.26
1 November	15603	14266	1337	8.57
25 December	17380	14167	3213	18.49



# THANK YOU