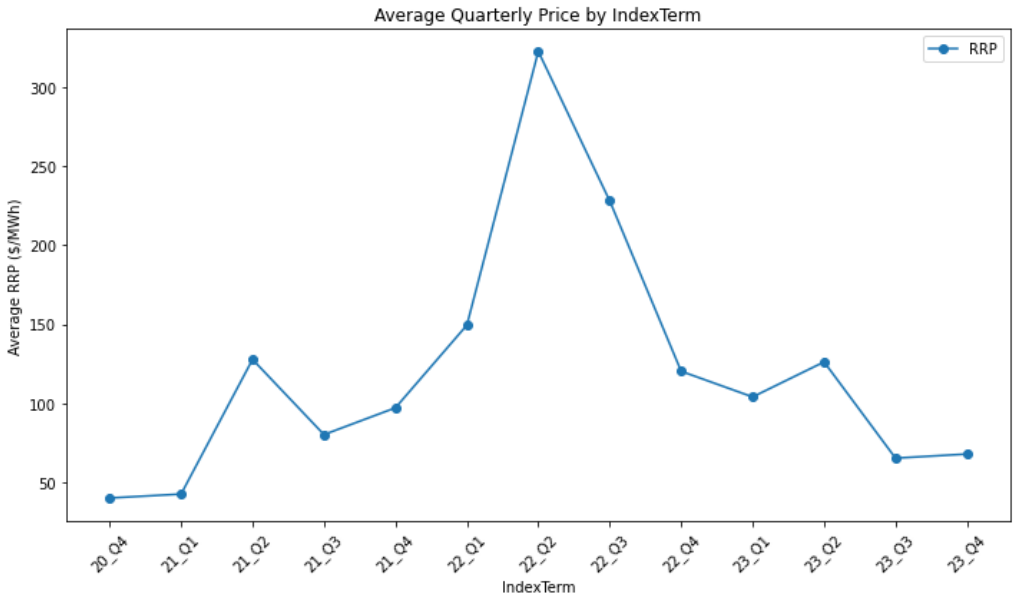
Investigate the data over the given time period, focusing on the IndexTerm column:

- Identify any unusual patterns or anomalies in the dataset.
- Explore potential reasons or events that may have caused these irregularities.

Analysis:



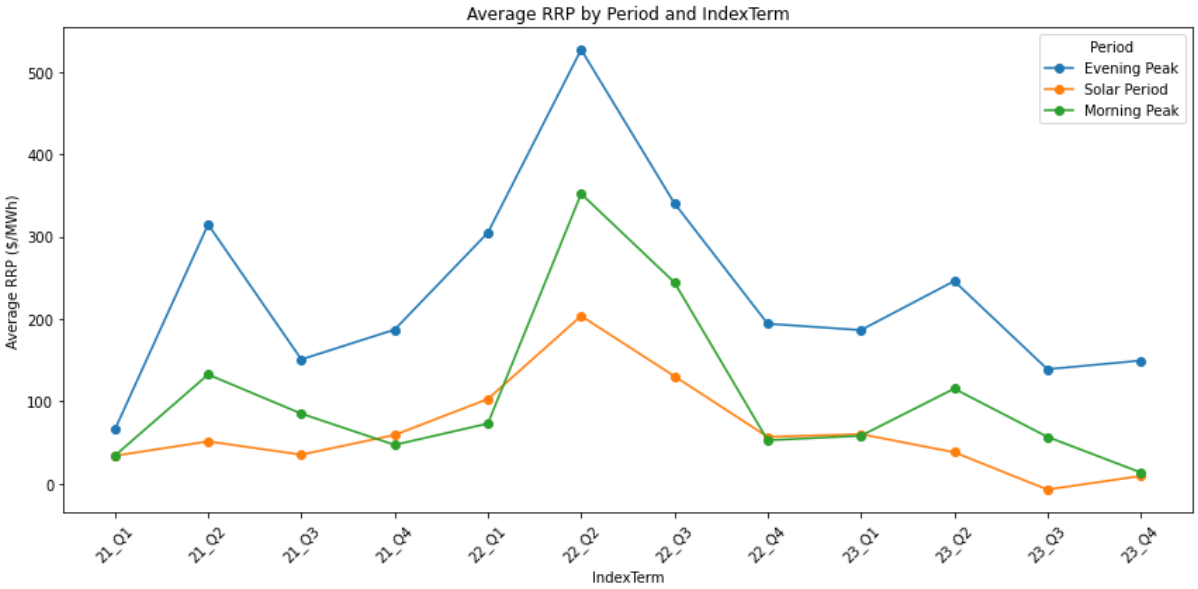
During 2022, the quarterly energy prices exhibit an unusual spike compared to 2021 and 2023. Notably, Q2 of 2022 records the highest average price of $323/MWh, a stark contrast to $43/MWh for the same quarter in 2021. The unusual trends in 2022, coupled with extreme peaks during Q2, may be attributed to various factors, such as increased energy demand, supply shortages, major power outages, or changes in generation capacity (e.g., retiring coal plants or grid reliability issues). Additionally, the high variance observed in 2022 indicates the presence of extreme demand days during this period. These peaks may have been influenced by COVID-related isolation measures, leading to higher heating or cooling requirements as more individuals stayed home.

IndexTerm	count	mean	std
20_Q4	1.0	40.170000	NaN
21_Q1	4320.0	42.647213	95.074130
21_Q2	4368.0	127.828191	581.391707
21_Q3	4416.0	80.259998	228.787346
21_Q4	4416.0	97.222323	405.929261
22_Q1	4320.0	149.513752	654.101553
22_Q2	4368.0	322.698949	615.260057
22_Q3	4416.0	228.096798	401.776461
22_Q4	4416.0	120.325059	118.151235
23_Q1	4320.0	104.105150	266.410803
23_Q2	4368.0	126.249551	279.433977
23_Q3	4416.0	65.381880	127.869085
23_Q4	4368.0	67.976101	195.680854

Analyse price behaviour in different periods:

- Assess and compare electricity prices across the three distinct time periods: Evening Peak, Solar Period, and Morning Peak.
- Provide insights into the trends, variations, or notable differences observed in these time frames.

Analysis:



1. **Evening Peak Prices**:
    - The Evening Peak consistently records the highest prices compared to the other periods.
    - Notably, in **Q2 2022**, the Evening Peak price reaches an all-time high of approximately **$527/MWh**, marking a significant anomaly.
2. **Trends Across Periods**:
    - Prices for all periods (Morning Peak, Solar Period, and Evening Peak) show unusually high values throughout 2022 compared to 2021 and 2023, indicating a systemic trend rather than a period-specific occurrence.
    - During 2022, particularly Q2, each period records its highest prices, with Solar Period and Morning Peak following the same upward trend as Evening Peak.
3. **General Pattern**:
    - The Solar Period consistently exhibits the lowest average prices across all quarters, while Morning Peak prices generally lie between those of the Evening Peak and Solar Period.
    - The sharp rise in prices during 2022, followed by a decline in late 2022 and 2023, suggests external factors impacting prices during this time frame.

Conclusion: Evening demand typically drives prices higher, which explains the extreme values during Evening Peaks in Q2 2022.