AEMR Case Study - (Non Technical Presentation)

Presented by
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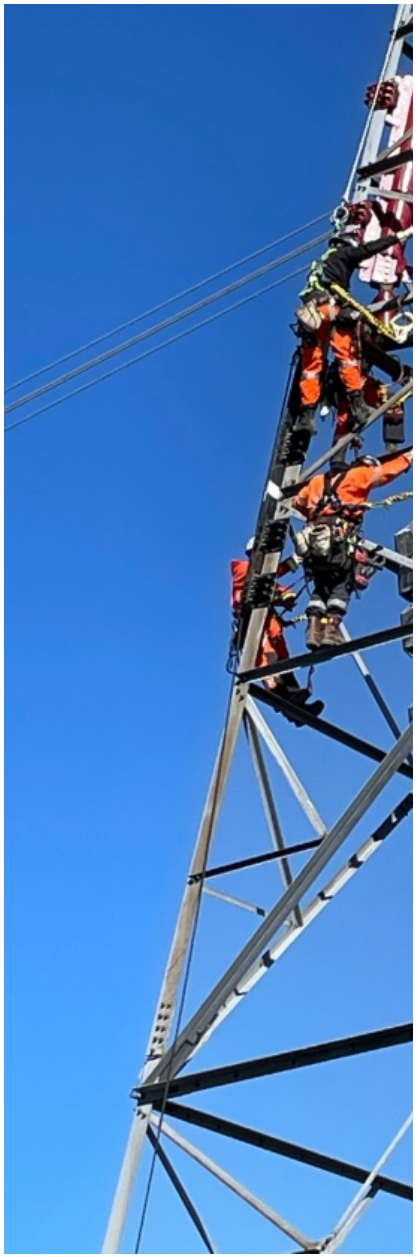
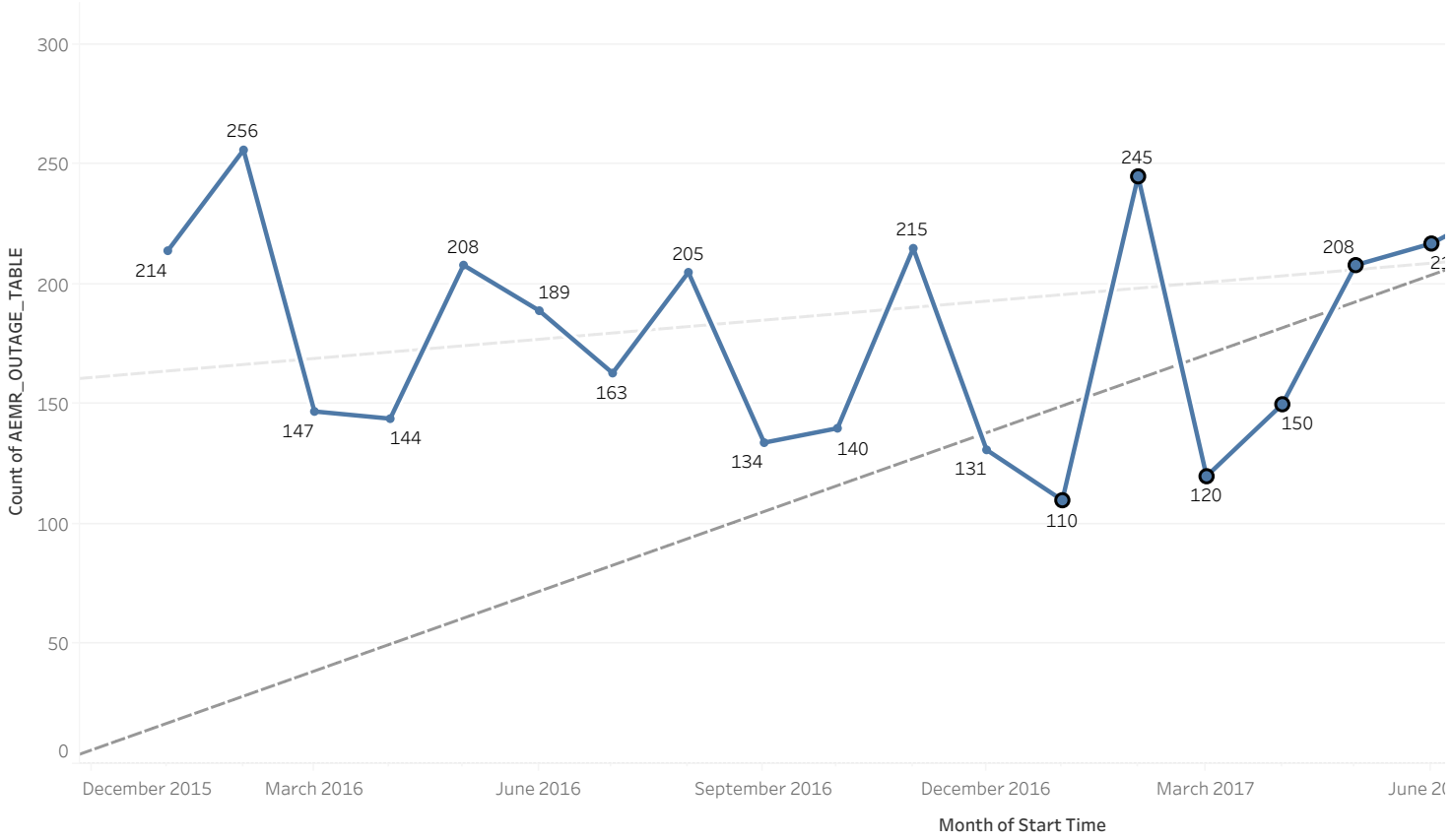


A major increase in the number of outage events in 2017 (121% YoY), an decline in market reliability largely due to force outage events linked to



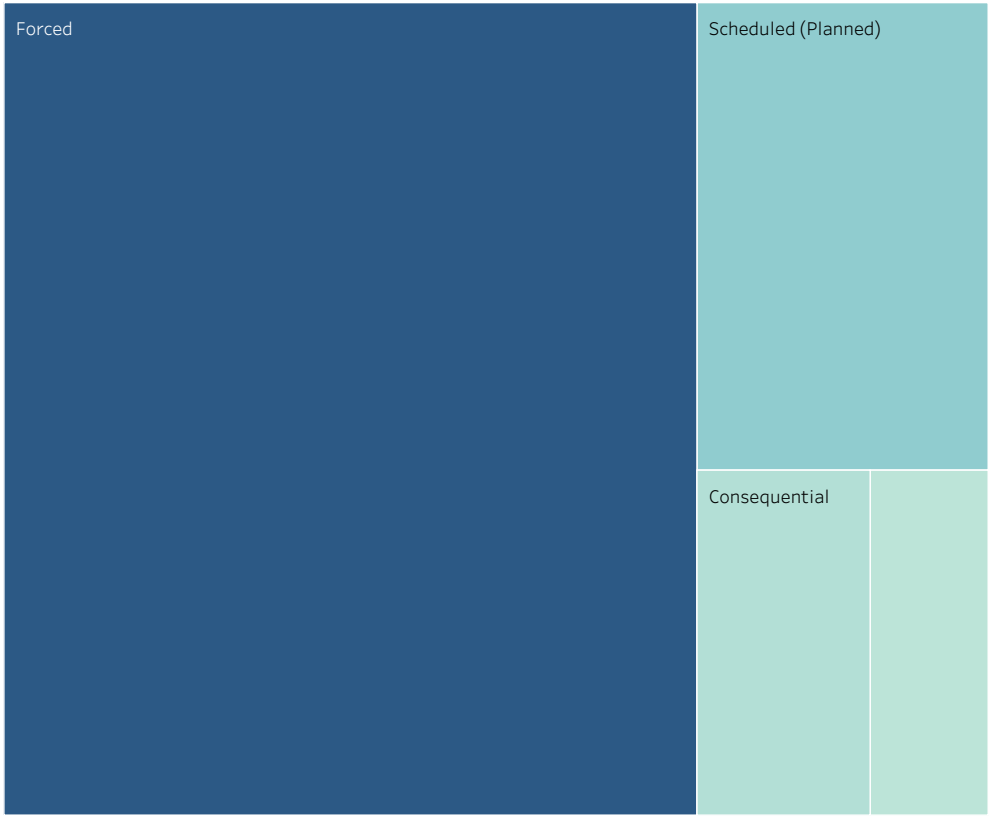
1)Outage During 2016 outage events stand between 100-200, while in 2017, the Year over Year increa 260). Forced outage has being the biggest reason of aoutages in the overall outage couting for 70%.

2)Energy Losses: Forced outage duration by +41% and frequent disruptions led to increasing total outa

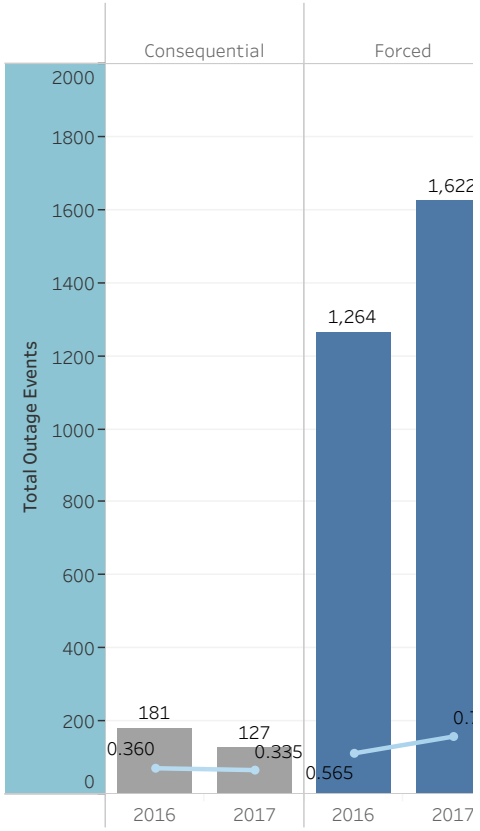
3)Market Reliability: Energy providers specifically, AURICON & GW together accounted for 40% 2of Forc subsequently causing decline in Market Reliability.

Forced and *Schedule (Planned)* inegrate the majority fo the outage by reason during 2016-2 increased (+41%) have led to Energy losses.

Total Approaved Status Outage by Type(2016-2017)



Most Common Outages Type (20

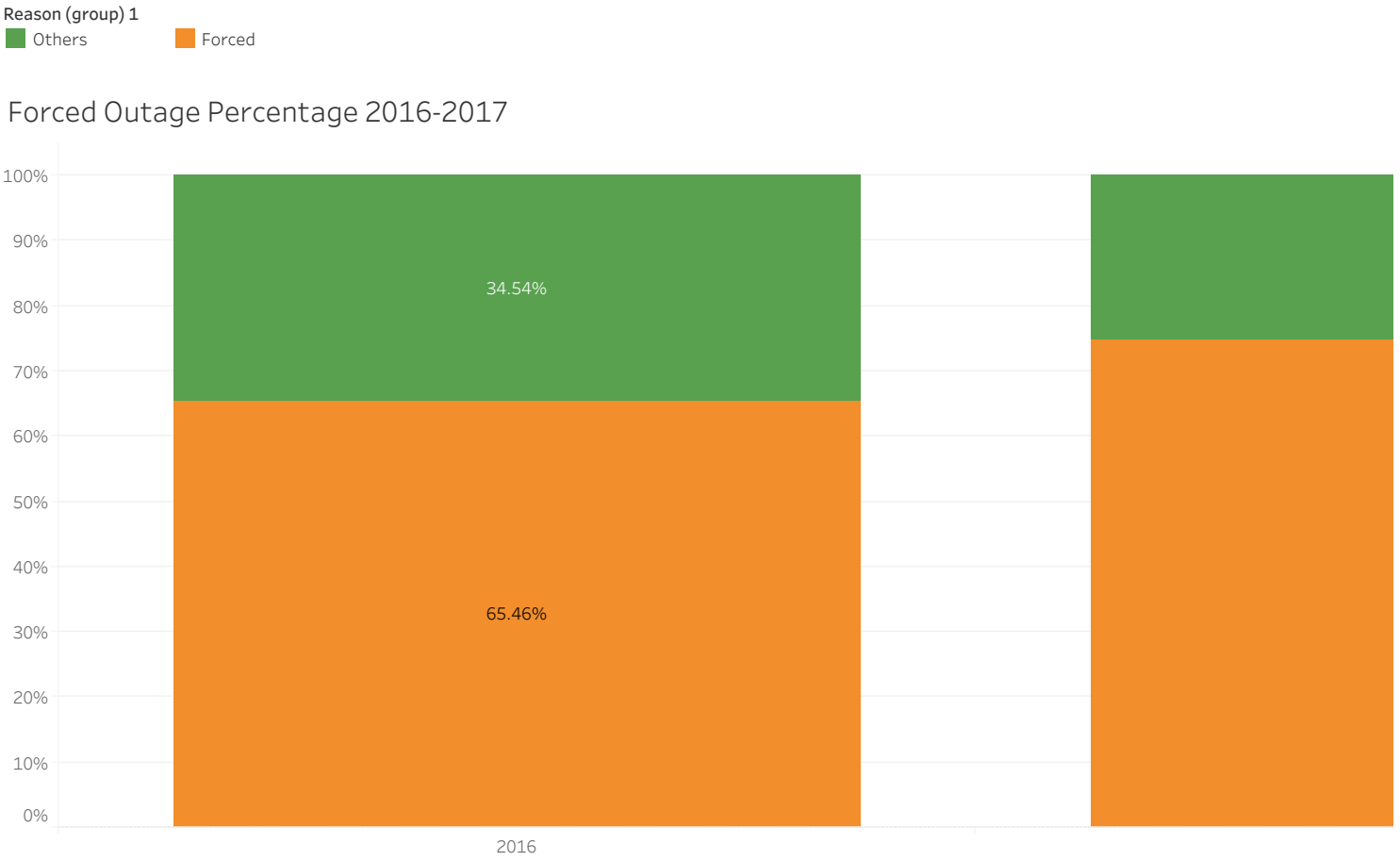


Takeaway:

■Forced Outage Events was the biggest reason by percentage (70%) out of all reasons for Outage and accounted fo

■Average Outage duration for Forced Outage saw +41% increase in duration.

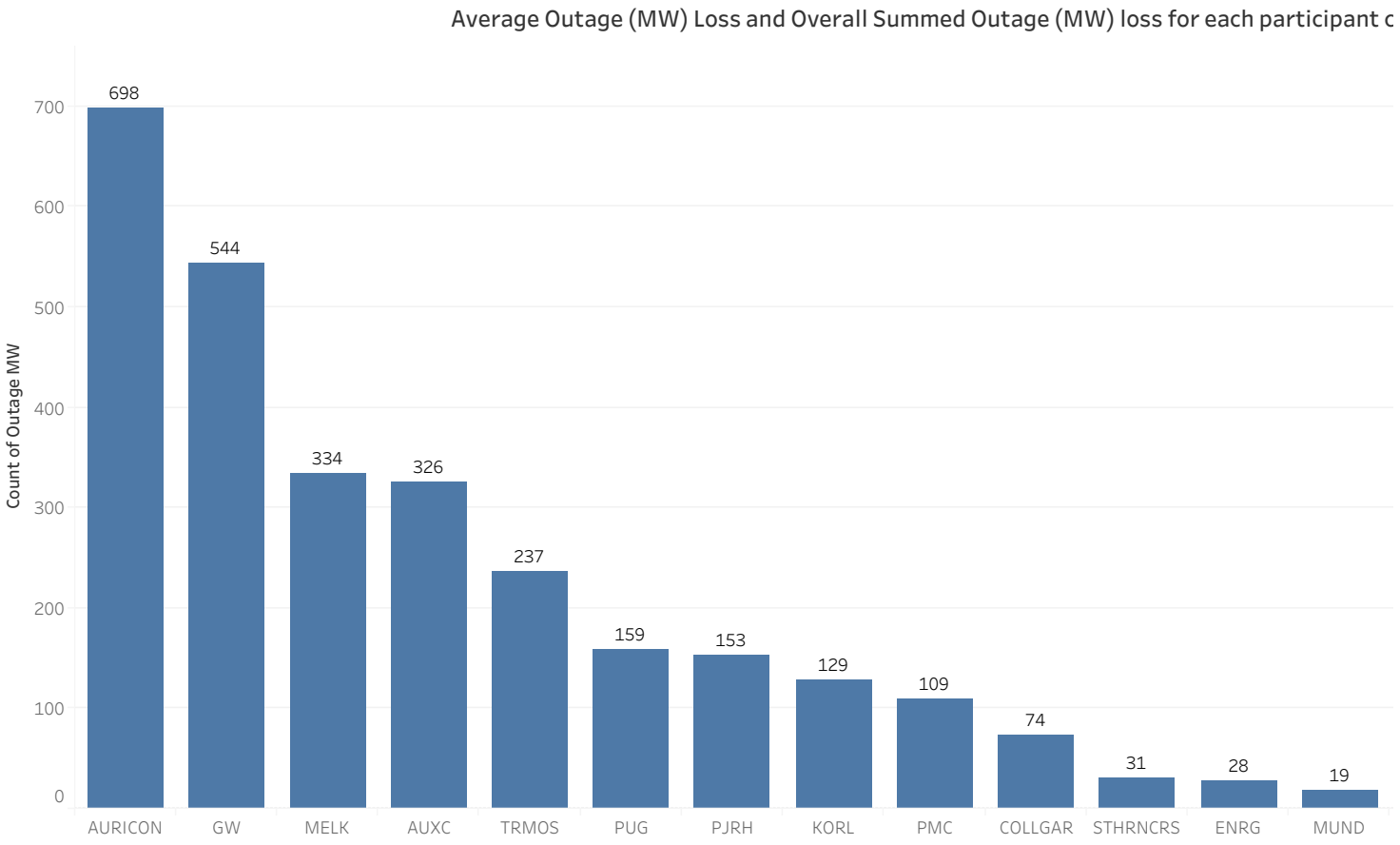
Forced Outages Events increased by 12% during 2016 and maintain the positive s



Takeaway:

■Forced Outage Events increased by +12% at the end of 2017 and have become for 75% of total outage events in 2017.

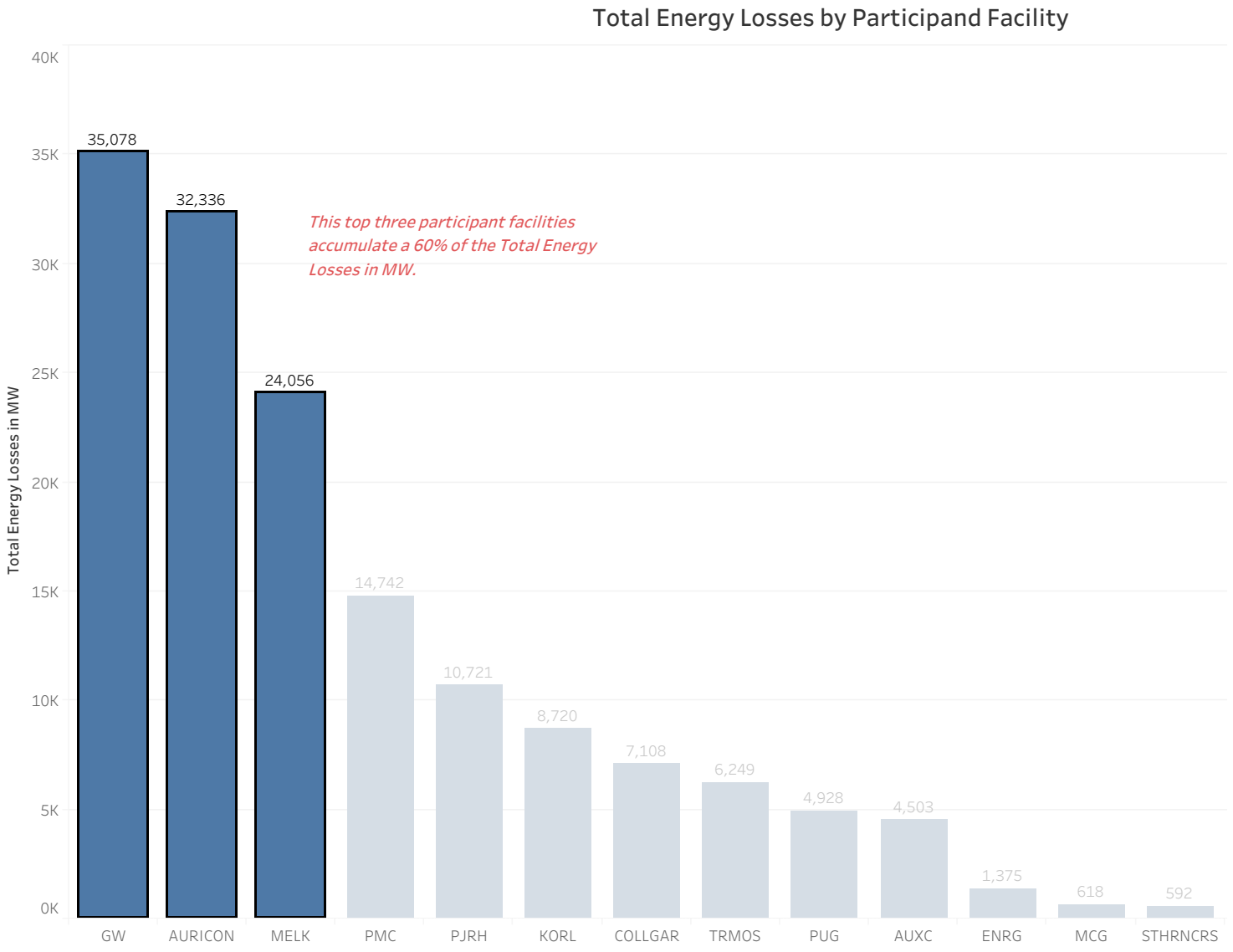
There is a top 2 providers (AURICON & GW)accumulating the highest outages



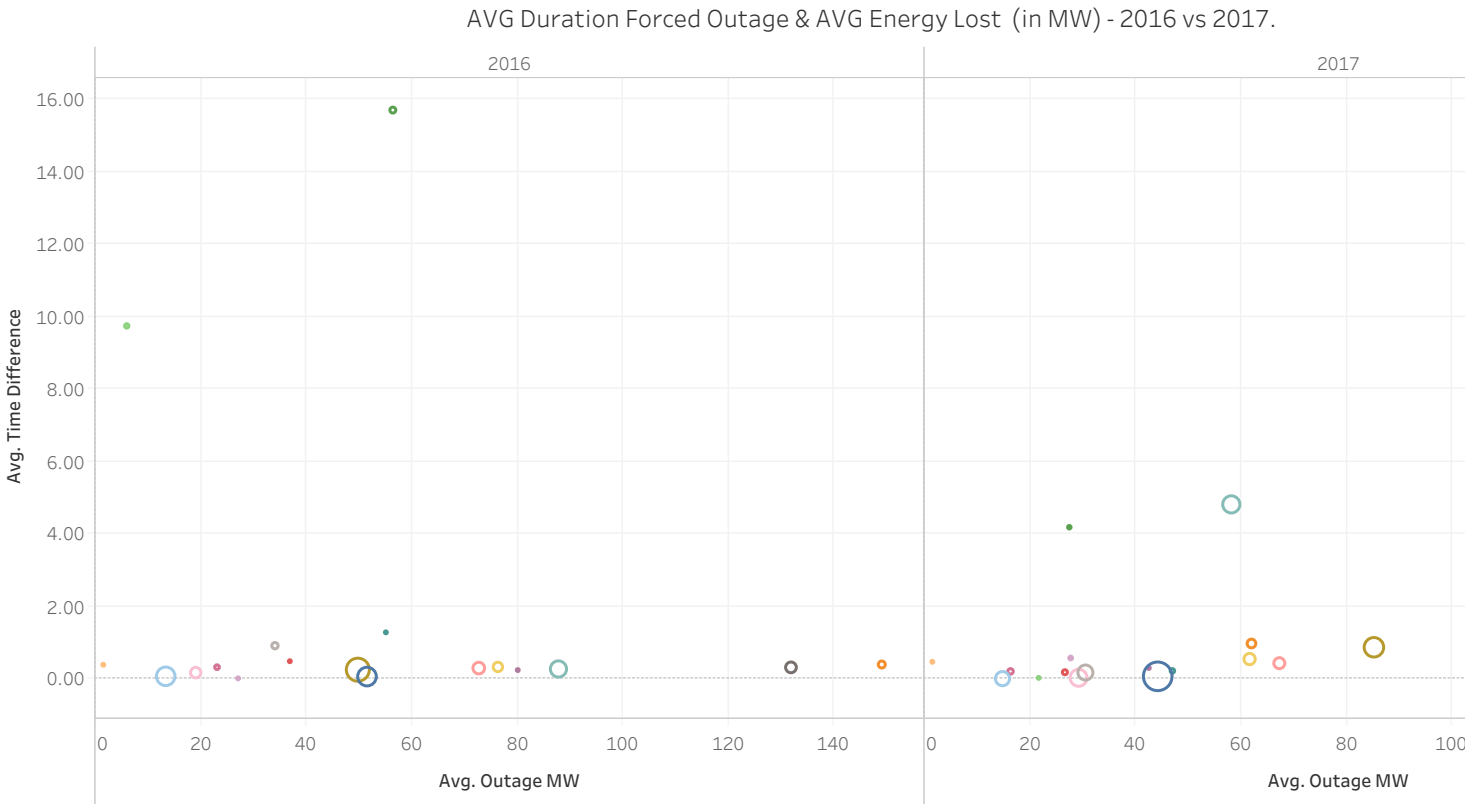
Takeaways:

- AURICON is the provider with the highest energy loss events (577), followed by GW(402) 2016-2017.

GW, AURICON & MELK account the majority of the Energy lost during 2016-2017.



GW increased the YoY AVG Energy lost (35.4 MW) and a light increse of the avg outage time events (



Take away:

- The numbers of forced outages events increased drastically for AURICON and MELK but maintaned the nergy losses in the consecu
- While ENRG decreased drastically the outage time by 11.52, MELK increased time differenece by 4.54.
- COLLGAR increased energy losses YoY by more than 50%, while PMC kept the energy losses betweem 130 to 140+ AVG MW YoY.