

S.No	Parameters	Description	
1	Asset	Battery	Generator
2	Source of Data	External Sensors: Temperature sensor, Voltage sensor, current sensor, Hydrogen sensor	Internal Sensors: Asset Controller Card for Generator performance External Sensors: Vibration sensor, exhaust (emmission) sensor, Fuel level sensor, Temperature sensor etc. Sensors to be deployed will vary by type of machine and use case.
3	Connectivity	4G LTE connectivity to cloud	4G LTE connectivity to cloud
4	Measured Parameters	Parameters that measure the operating condition of the Asset such as Voltage, Current, Battery surface temperature, Ambient temperature, Hydrogen concentration	Parameters that measure the operating condition of the Asset such as Ignition On/Off status, Voltage, Current, Battery voltage, Coolant temperature, Lube oil pressure etc.
5	Derived Parameters and Aggregations	State of Charge (SOC), State of Health (SOH), Battery Current on charge/discharge, Battery Internal Resistance, Ripple measurement Events: Weak Battery, Ground Fault	Run hours, Energy/Fuel consumption, Consumption Per Hour, Health of Asset Events: Fueling and Defueling
6	Business Use Case	Asset Monitoring: 1. Monitor the Performance, Productivity and Health of the Asset 2. Early alerts to maintain the Battery better 3. Plan Maintenance of the asset (Shift from Preventive to Condition Based and Predictive Maintenance) 4. Avoid buildup of explosive atmosphere due to hydrogen gas leakage 5. Enable movement from Capex to Battery as a Service	Asset Monitoring: 1. Run the asset more efficiently 2. Reduce the reactive time for repairs, increase uptime 3. Plan Maintenance of the asset (Shift from Preventive to Condition Based and Predictive Maintenance) 4. Monitor and prevent Fuel loss due to leakage and pilferage
7	Data Observability	Monitor the Health of the Data Pipeline and Integrity of the Data reported by the device. Raise alerts and notificatons when - 1. Device goes offline 2. Comes back online 3. Out of Range data indicating malfunction in the device	Monitor the Health of the Data Pipeline and Integrity of the Data reported by the device. Raise alerts and notificatons when - 1. Device goes offline 2. Comes back online 3. Out of Range data indicating malfunction in the device
8	ETL reports, Alerts / Notifications	Reports: 1. Daily usage reports Summary - Charging / Discharging hours 2. Battery Voltage trend 3. Battery temperature on charge/discharge 4. Health Condition of the Battery - State of Charge (SOC), State of Health (SOH) Alerts/Notifications: 1. Alert for Operating thresholds being breached 2. Imminent failure of the Asset/part of the Asset	Reports: 1. Daily usage reports Summary - run hours, CPH 2. Fuel / Energy Consumption trend 3. Fueling and Defueling details 4. Health Condition of the Asset Alerts/Notifications: 1. Alert for Operating thresholds being breached 2. Imminent failure of the Asset/part of the Asset 3. Fueling/Defuelling events
9	Master / Reference Data	Enrich telemetry data with Master/ Enterprise reference data such as make, model, size, age, location	Enrich telemetry data with Master/ Enterprise reference data such as make, model, size, age, location

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10	Contextualisation via Public API	Framework to enrich and contextualise telemetry data through Public API integration to get Weather conditions. Co-relate ambient condition (Temperature, Humidity, Pressure) to the performance of the battery and apply impact on the need for maintenance of the asset	Framework to enrich and contextualise telemetry data through Public API integration to get Weather conditions. Co-relate ambient condition (Temperature, Humidity, Pressure) to the performance of the machine and apply impact on the need for maintenance of the asset
11	Accessibility	Web Reports, Mobile App (Android and iOS)	Web Reports, Mobile App (Android and iOS)