



The True Cost of Lithium UPS Batteries

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Application & Technologies





Main “Advantages” of Lithium

- Size
- Weight
- Cycle life



Main Disadvantages of Lithium

- Safety
- Relative cost (TCO)
- Recyclability







Example: 72kWh Lithium UPS Battery

- Base price: R1,850,000 excl. VAT – DDP Johannesburg
– R25,000 per kWh / R25 per Wh
- Recycling cost: R350 per kg
- Weight of battery: 1300kg
- Recycling cost: R450,000 excl. VAT (25%)
- TCO: R2,300,000 excl. VAT / R32,000 per kWh / R32 per Wh
- TCO for 72kWh VRLA TPLC AGM: R3,000 per kWh / R3 per Wh
- **Lithium = 10 x VRLA TPLC AGM**



Conclusion

- Advantages are only advantageous if required
- Various advanced chemistries exist
- Lithium does not address the theft problem
- Recyclability should be a key factor

