#### **March 2018**

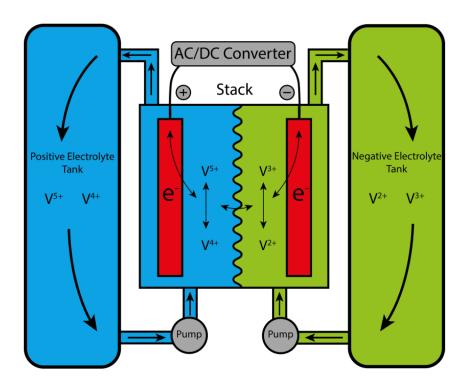




### **Liquid Energy Storage**

- Conventional batteries have fixed power and energy locked together in the cell – redT energy storage machines are modular and decouple power from energy – sized to your exact needs
- Our energy storage machines use liquid electrolyte contained in tanks outside the stack and pumped through it – like a car engine and fuel tank – albeit, with fuel that does not degrade or run out.
- Long duration storage, with 100% depth of discharge functionality that doesn't deteriorate over time

#### VIDEO: How redT's Technology Works





### **Lithium vs Flow Machines**

#### **Batteries**

**Cheap Power** 



**Short Life** 



High Levelised Cost of Ownership



High Maintenance & % Degradation cost



0 to 50% depth of discharge



Not recyclable & environmental waste issue



Thermal runaway fire risk up to 25C temp restricted





Cheap Energy

**Machines** 



Long Life, infrastructure



Low Levelised Cost of Ownership



Low Maintenance No Degradation



100% depth of discharge



Fully reusable & environmentally friendly



Safe, no fire risk



### redT energy storage machines

- Develops and Manufactures Liquid Energy
  Storage Machines for Commercial & Industrial
  Applications
- UK-Based, Public Company (red:L), Office locations in UK, EU and Africa
- 19 years of development, proven technology in the field
- Machines across UK, EU, Australia & Africa
- **7.5 years** equivalent operating machines
- Lowest Cost Vanadium Energy Storage Machines available globally.



100% Depth of Discharge



**Long Lifespan** 



**Modular & Scalable** 



**Low Levelised Cost of Ownership** 



Safe



**Low Maintenance** 



**Remote Monitoring** 



**Environmentally Friendly** 

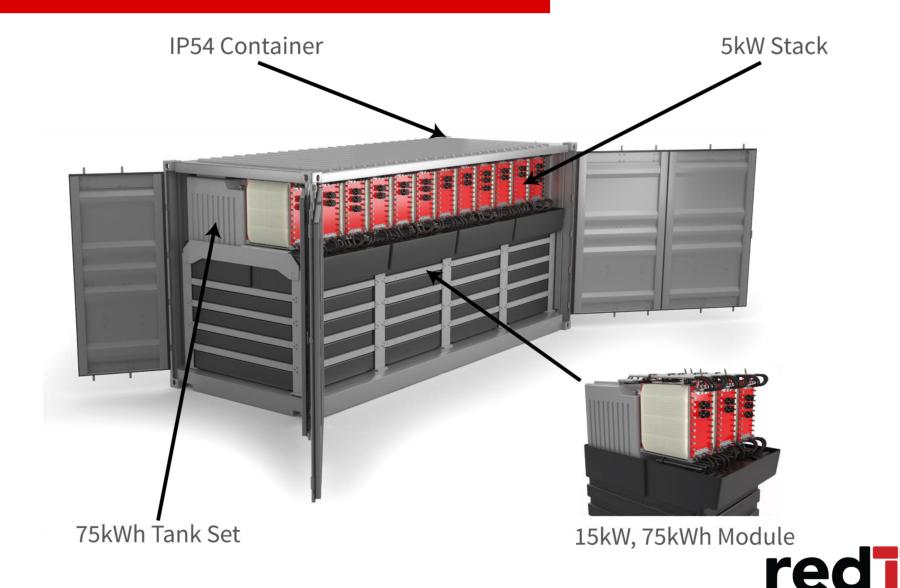




Jabil Circuit Inc. has approx. x7 the global manufacturing floorspace of Tesla's Gigafactory



## redT Energy Storage Machine



energy storage

# **Product Range**

| Product name     | Rated power | Discharge duration* | Rated energy | Dimensions                   |
|------------------|-------------|---------------------|--------------|------------------------------|
| redT 10000-50000 | 10MW        | 5 hours             | 50MWh        | Multi 20" Hi-Cube containers |
| redT 5000-25000  | 5MW         | 5 hours             | 25MWh        | Multi 20" Hi-Cube containers |
| redT 1000-5000   | 1MW         | 5 hours             | 5MWh         | Multi 20" Hi-Cube containers |
| redT 500-2500    | 500kW       | 5 hours             | 2500kWh      | Multi 20" Hi-Cube containers |
| redT 100-500     | 100kW       | 5 hours             | 500kWh       | Multi 20" Hi-Cube containers |

| Product name | Rated power | Discharge duration* | Rated energy | Dimensions             |
|--------------|-------------|---------------------|--------------|------------------------|
| redT 60-300  | 60kW        | 5 hours             | 300kWh       | 20" Hi-Cube container  |
| redT 40-300  | 40kW        | 7.5 hours           | 300kWh       | 20" Hi-Cube container  |
| redT 45-225  | 45kW        | 5 hours             | 225kWh       | 20" Hi-Cube container  |
| redT 30-225  | 30kW        | 7.5 hours           | 225kWh       | 20" Hi-Cube container  |
| redT 30-150  | 30kW        | 5 hours             | 150kWh       | 20" Hi-Cube container  |
| redT 20-150  | 20kW        | 7.5 hours           | 150kWh       | 20" Hi-Cube container  |
| redT 15-75   | 15kW        | 5 hours             | 75kWh        | 10" Hi-Cube container  |
| redT 10-75   | 10kW        | 7.5 hours           | 75kWh        | 10" Hi-Cube container  |
| redT 5-40    | 5kW         | 8 hours             | 40kWh        | 10" Hi-Cube container  |
| redT 5-20    | 5kW         | 4 hours             | 25kWh        | 6'6" Hi-Cube container |

<sup>\*</sup>Continuous discharge duration at rated power. Duration is proportional to power requirements i.e. if discharging at 50% rated power, duration is doubled.

