

# Hybrid Energy Solutions Ltd



## Executive Summary



**Hybrid Energy** provides renewable energy based hybrid power generation technologies for the Telecommunications industry

Providing reliable and cost effective off-grid power solutions

***As much power as you need, where you need it, reliably and cost effectively.***

Hybrid Energy assists companies pursue a green strategy -increasing efficiency through innovative and cost effective solutions.

Energy solutions are offered on a sale, lease or rental basis.

***Delivering  
cost effective  
reliable  
cleaner  
power sources.***

## Why Telecoms?

- Global demand for reliable off-grid power solutions
- Energy accounts for up to 60% of network operating expense
- High growth in data traffic in developed world, smart phones
- High growth in voice traffic in developing world
- Driving investment in networks
- Falling ARPU drives efficiency and OPEX squeeze
- New technology driving down energy demand
- Making existing diesel generators less efficient
- Corporate policies to reduce carbon footprint



# How Does It Operate



- Similar To A Hybrid Car
- Engine - Battery Combination
- Engine Powers Load + Charges Battery
- When Battery Charged Engine Shuts Down
- When Battery Discharges Engine Restarts
- Variable Speed Operation Improves Efficiency
- When Load Higher Engine Speeds Up
- Can Plug In Wind / Solar To Supplement



# Hybrid Generator Installations Ireland



## Other Markets

- **Automotive Industry**

- Demand for DC generators for re-charging electric vehicles
- Staging areas for imports
- Breakdown service for rapid charging
- Access to lithium ion batteries for hybrid generators

- **Military**

- Small continuous power for remote outposts
- Afghanistan cell-tower network powered by generators

- **Oil & Gas**

- Power for monitoring oil & gas pipelines

- **Marine**

- Power for small – medium sized vessels

## Conclusions

- **Market niche**
- **Proven Business model**
- **Strong opportunities in Developing countries**
- **Strong opportunities in Other industries available also for exploitation**
- **Massive Scaling opportunities**
- **Scaling will be Funding dependent**
- **Development will be through partner infrastructure in various territories globally**

**Thank you.**