

## **Scalable Commercialisation Today**

7<sup>th</sup> Stakeholder Forum of the European Partnership for Fuel Cells and Hydrogen 12th November 2014, Brussels, Belgium

#### Presented by: Dr Henri Winand CEO Intelligent Energy

©2014 Intelligent Energy Limited

The information in this document is the property of Intelligent Energy Limited and may not be copied or communicated to a third party, or used for any purposes other than that for which it is supplied without the express written consent of Intelligent Energy Limited. This information is given in good faith based upon the latest information available to Intelligent Energy Limited, no warranty or representation is given concerning such information, which must not be taken as establishing any contractual or other commitment binding upon Intelligent Energy Ltd or any of its subsidiary companies.



This presentation has been prepared on behalf of Intelligent Energy Holdings plc (the **"Company**") for information and discussion purposes only. No reliance may be placed for any purposes whatsoever on the information contained in this presentation or on its completeness. The Company is not under any obligation to update or keep current the information contained in this presentation. No representation or warranty, express or implied, is given by or on behalf of the Company or its respective subsidiary undertakings, affiliates, respective agents or advisers or any of such persons' affiliates, directors, officers or employees or any other person as to the fairness, accuracy or completeness of the information, or of the opinions, contained in this presentation and no liability is accepted for any such information or opinions.

#### THIS PRESENTATION DOES NOT CONSTITUTE OR FORM PART OF ANY OFFER, INVITATION, PROMOTION OR RECOMMENDATION TO PURCHASE OR TO SUBSCRIBE FOR, OR ANY OFFER OR INDUCEMENT OR INVITATION OR COMMITMENT TO PURCHASE OR SUBSCRIBE FOR (OR ANY SOLICITATION OF ANY OFFER TO PURCHASE OR SUBSCRIBE FOR), ANY SHARES IN THE COMPANY OR ANY SECURITIES IN ANY OTHER ENTITY.

Without limitation to the foregoing (and subject to certain limited exceptions) this presentation is not for use in the United States and may not be transmitted, published or otherwise distributed in the United States. The Company's securities have not been and will not be registered under the US Securities Act of 1933 or under any applicable securities laws of any state or other jurisdiction of the United States.

Certain statements (or information) included in this document constitute, or may constitute, forward-looking statements and / or financial projections which can be identified by the use of terms such as "may", "will", "should", "expect", "anticipate", "project", "estimate", "intend", "continue," "target" or "believe" (or the negatives thereof) or other variations thereon or comparable terminology. Due to various risks and uncertainties, actual events or results or actual performance of the Company may differ materially from those reflected or contemplated in such forward-looking statements and no reliance should be placed on such forward-looking statements. No statement in this presentation is intended to be nor may be construed as a profit estimate or profit forecast.



# Meeting the world's growing need for energy will require more than \$48 trillion in investment over the period to 2035

"The reliability and sustainability of our future energy system depends on investment"

IEA Executive Director Maria van der Hoeven

Sources: (1) International Energy Agency www.iea.org (2) Offshore Energy Today: IEA: \$48 trillion investment needed to meet energy demand by 2035 (June, 2014)



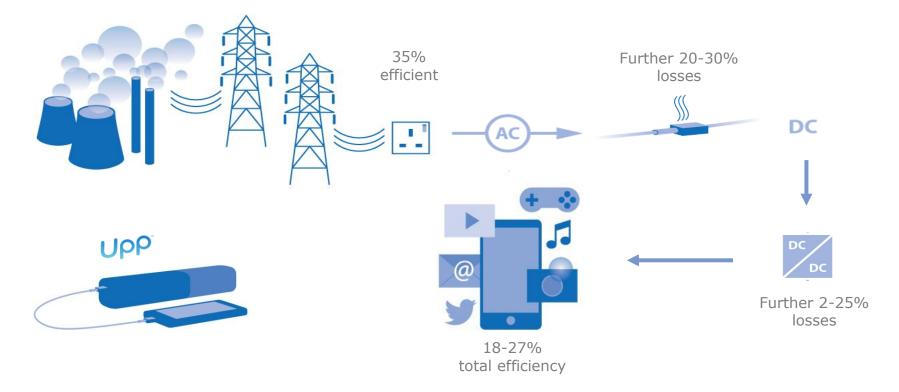
# "Large-scale power generation, however, will be the dinosaur of the future energy system: Too big, too inflexible, not even relevant for backup power in the long run"

**UBS** 10<sup>th</sup> August 2014 Research Note

Source: UBS: http://www.qualenergia.it/sites/default/files/articolo-doc/ues45625.pdf





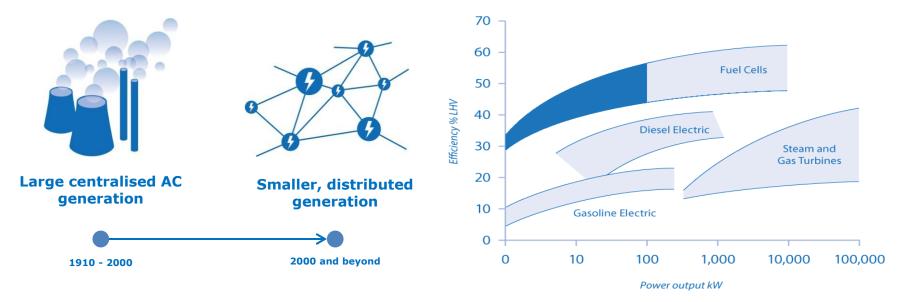


# Fuel cells provide highly efficient power solutions for today's DC electronic devices

Sources: (1) npower UK website - energy efficiency data (2) Power Topics blog-spot - energy efficiency calculations for power



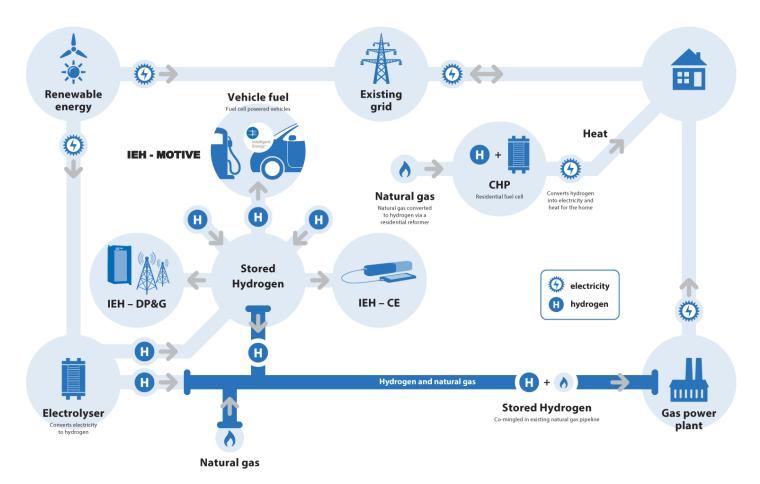
# Much like our phones moving from fixed line to mobile:



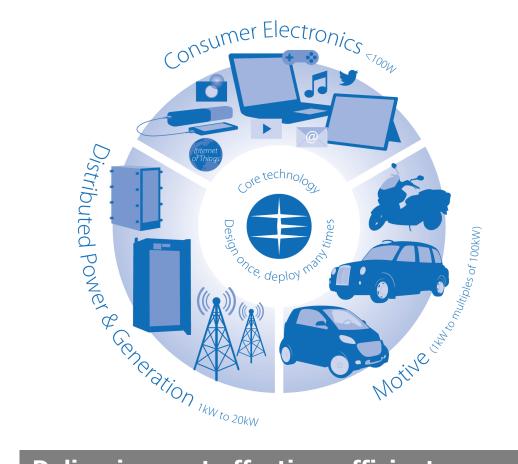
### Fuel cells provide scalable, efficient distributed power generation

Source: (1) MIT Technology Review: Edison's Revenge: The Rise of DC Power (2012) (2) General Electric: Brandon Owens: The rise of distributed power (2014)

# Hydrogen: an important part of the energy landscape



# Three Core Markets ... With Enormous Potential



**Delivering cost effective, efficient power** 





with proven products

# Solving multiple customer needs with IEH technologies

Sector	Pain Point	IEH Technology Attribute	Key Measures
Motive	Emission penalties	Cleaner power	\$ / kW g CO <sub>2</sub> / km
CE	Inadequate runtimes / limited infrastructure	High energy densities	Number of charges \$ per charge kWh / kg
DP&G	Cost of power / shortage of grid infrastructure	Cheaper power, Availability	\$ / kWh

Proprietary, highly patented technologies, with best in class performance are being commercialised / developed with OEM and contract manufacturing partners to solve key commercial issues in three main sectors



### Motive

Joint development agreements more than cover costs with material value from signed licensing and royalty agreements

### CE

Opportunity to transition to a high margin licensing model with embedded devices, have proven the concept with portable power device

### DP&G

Utility style long term contract agreements with predictable cash flow with the ability to deliver above utility returns

### Design once, deploy many times



- There is a global need for highly distributed, efficient power generation
- This distributed power is **typically DC (personal devices etc.)** which **fuel cells are ideally placed** to generate
- Hydrogen is already a big market with real systemic scale potential and accelerating take up
- Intelligent Energy is executing on these trends through:
  - Differentiated proprietary and flexible technology with high barriers to entry
  - Large, growing, de-correlated multiple end markets with real customer pain points
  - Material existing contracts in Motive
  - CE and DPG piggyback off growth in need for efficient distributed power generation in developing economies and highly distributed power for smart devices (smart mobility and Internet of Things) globally
  - Tailored business model by market to deliver at scale
  - Blue chip partners
  - Capital to execute
  - Highly credible and experienced board and operational management executing on opportunities





For more information on Intelligent Energy, please visit: