



The **ENERGY DISRUPTION** will come long before we run out of fossil fuels

Energy investments in INDUSTRY AND POWER between 2015-2050 29.6 USD trillion

Global market for **BIOENERGY** in 2018: 18.3 bn \$ and in 2020 26.1 bn \$ **43% increase**

Changing roles of CONSUMERS AND UTILITIES

Energy investments in **TRANSPORTATION** between 2015-2050 **14.2 USD trillion**

CONNECTIVITY SECURITY RELIABILITY



In 2030s most of energy capacity will be **SOLAR OR WIND, 15-FOLD BATTERY** volume increase, **EVs** are majority

Global market for **W2E** in 2018: 40.3 bn \$ and in 2020 58.9 bn \$

▲ 46% increase

BLOCKCHAIN, IOT, AI set to disrupt energy business, but it is still unclear when and how

Energy investments in **BUILDINGS** btw 2015-2050 **39.6 USD TRILLION**

DATA MANAGEMENT GRID FLEXIBILITY







