

Kaiserwetter

Big Data, IoT and AI as the Key Elements of Future Power Generation



17 July 2019



Smart Data Analytics

Internet of Things

Machine Learning

Predictive Analytics

Augmented Analytics

Deep Learning

Artificial Intelligence

Demand Side Economies

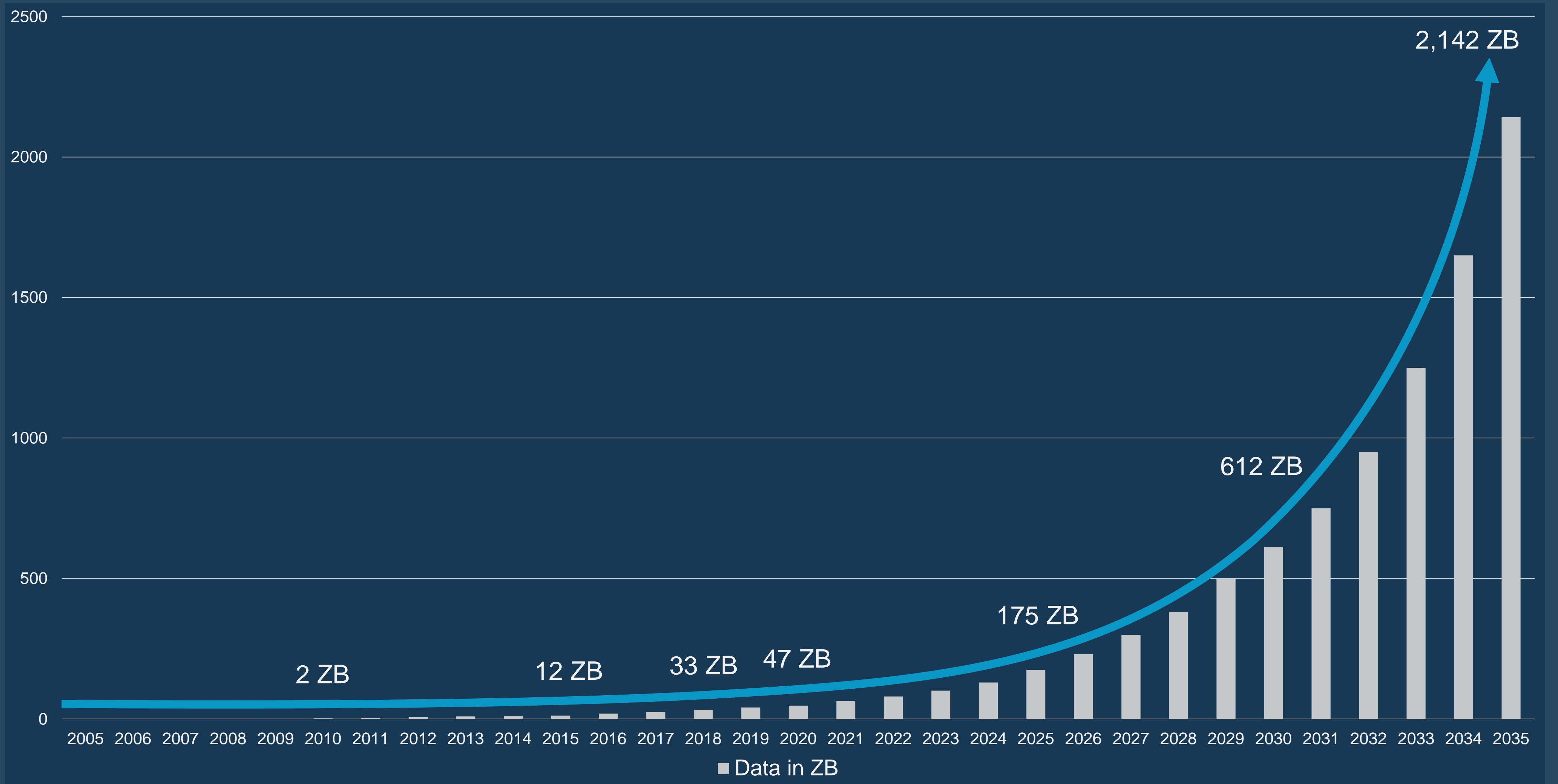
Digital Twin

Big Data Mining





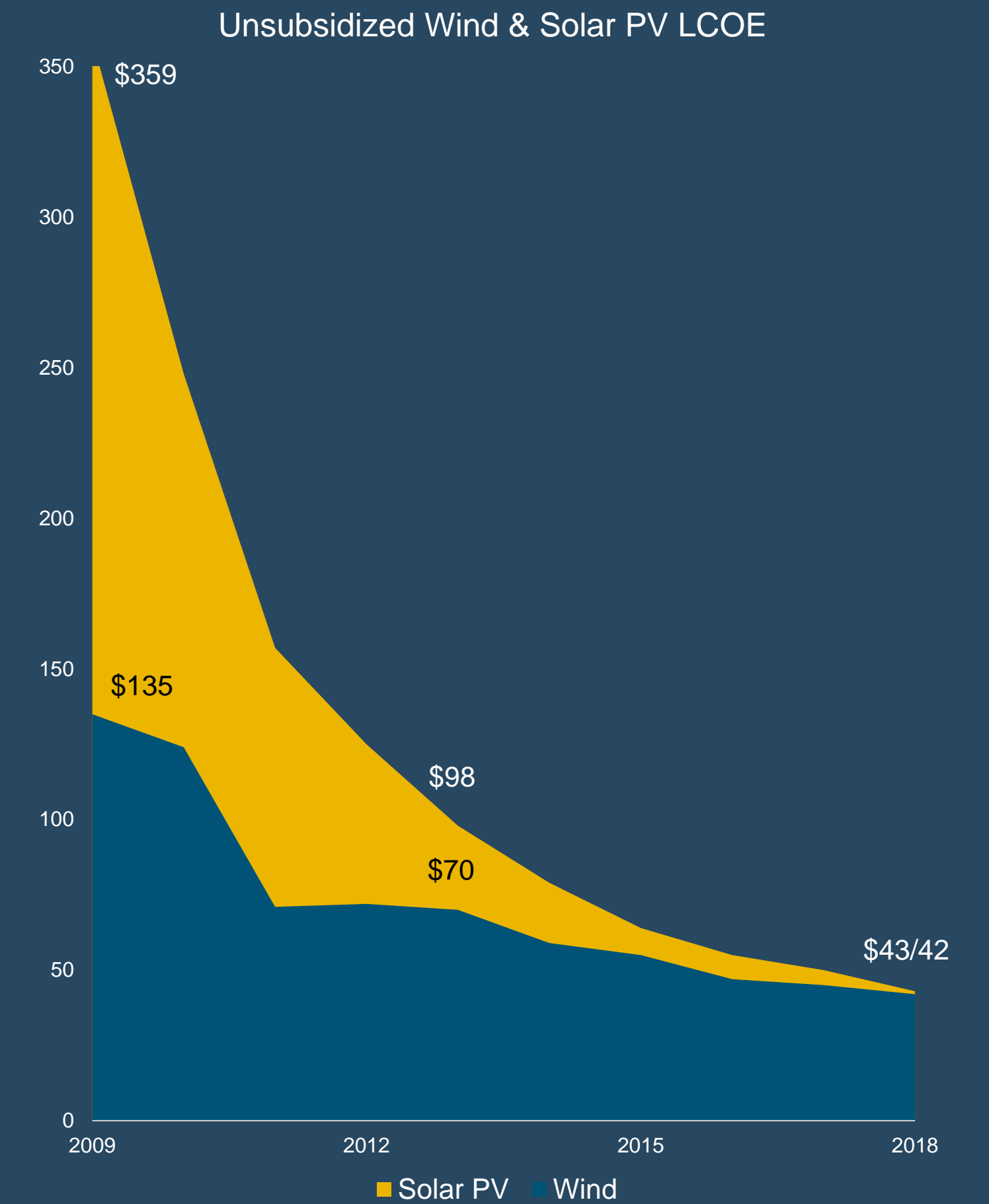
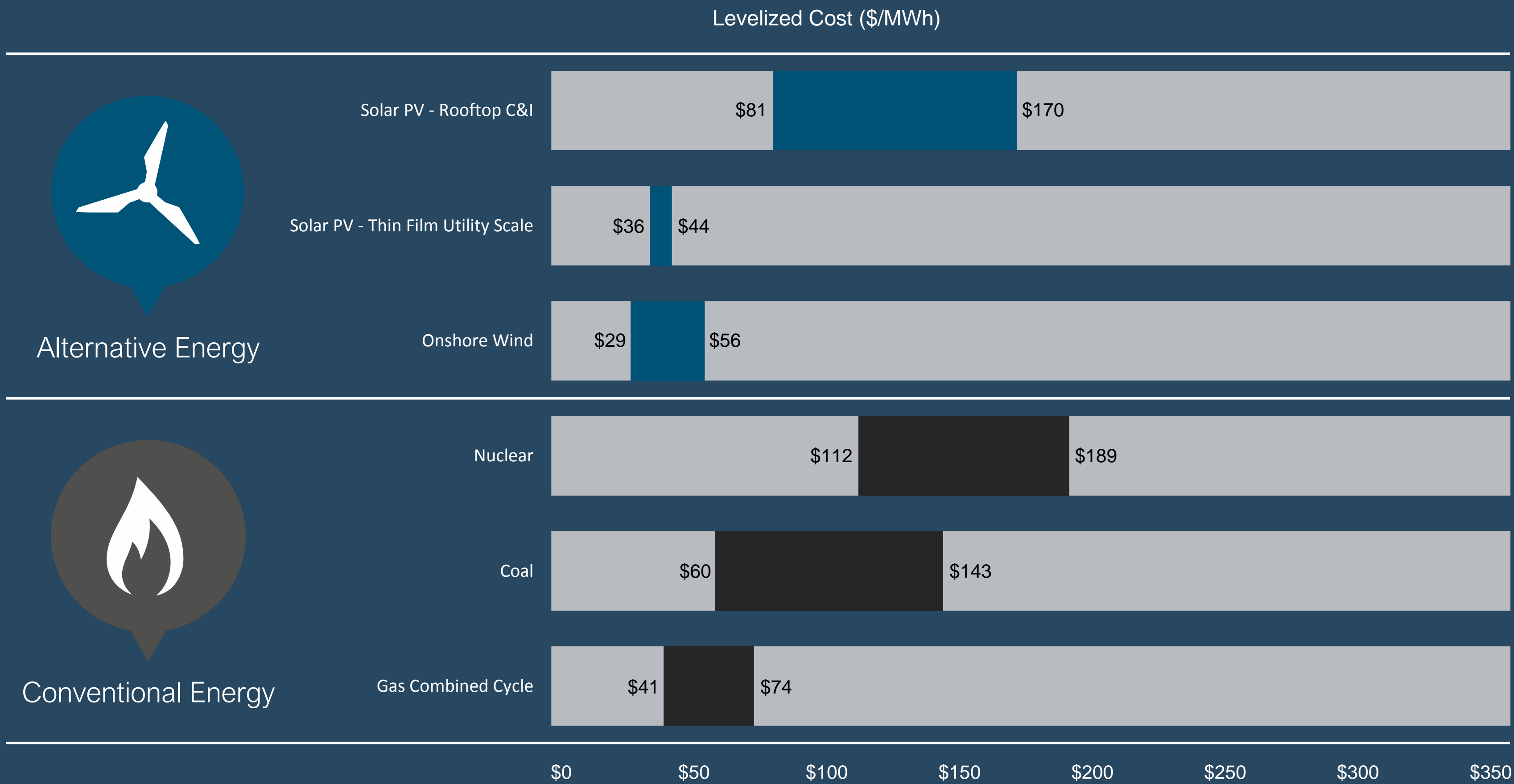
The consequence of the increasing reliance on data will be a never-ending expansion in the size of the global data sphere, which drives the GDP and the future economic world



Source: IDC White Paper sponsored by Seagate: Data Age 2025. The Digitization of the World from Edge to Core, November 2018, Kleiner Perkins, Statista Digital Market Outlook



Investing in renewable energy has never been such an attractive proposition!





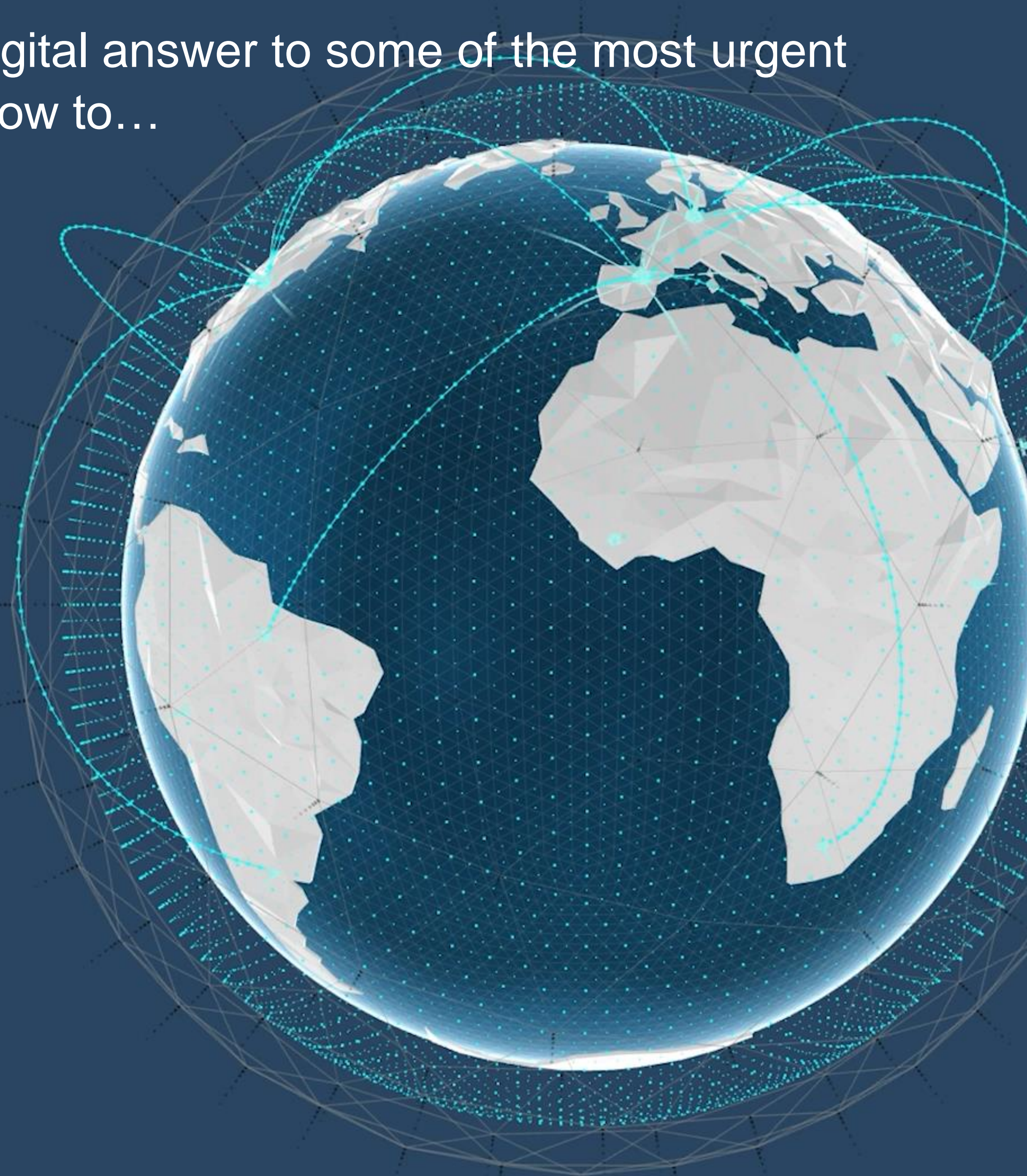
ARISTOTELES as our IoT-Platform is the digital answer to some of the most urgent questions of capital investors and banks – how to...

...minimize Investment Risks

ARISTOTELES

...maximize Returns

...create highest Transparency



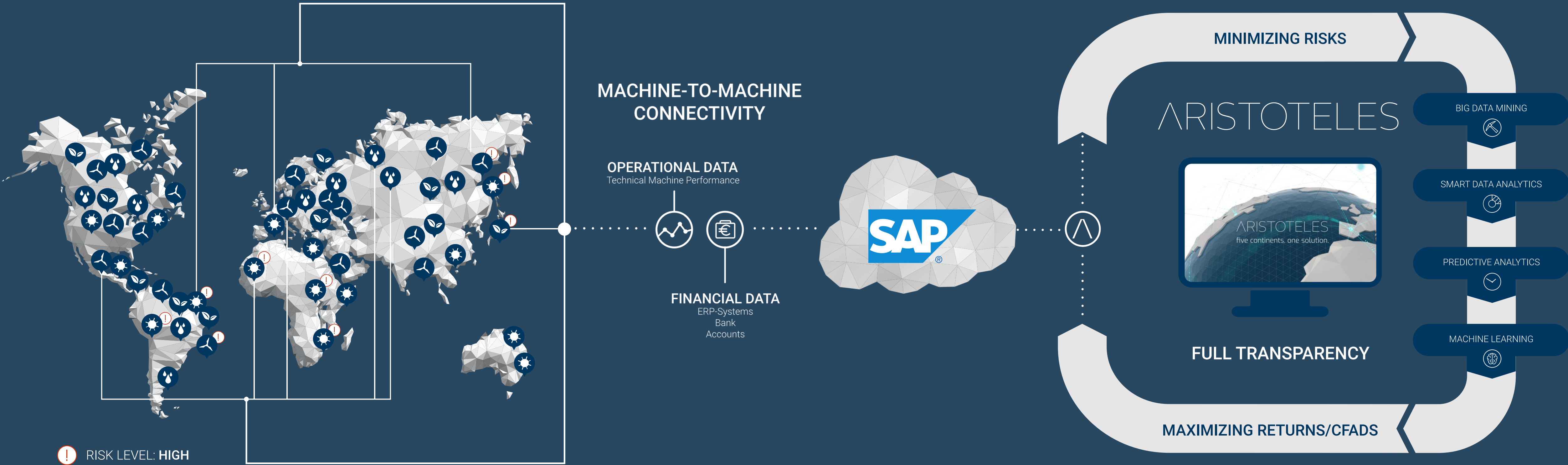


ARISTOTELES is the digital approach towards the future managing investment portfolios / credit loan portfolios on a regional, national and global level





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2017

ARISTOTELES 1.0
Connected Assets

Fully working platform with approximately 160 million data points in the cloud

2018

ARISTOTELES 2.0
Advanced Analytics

2019

ARISTOTELES 3.0
Predictive Analytics
- Machine Learning

2020

ARISTOTELES 4.0
Augmented Analytics
- Deep Learning

2021

ARISTOTELES 5.0
Connected Markets
- Demand Side Economics



With all these digital innovations ARISTOTELES is putting all kinds of assets under one umbrella and ready to become the worldwide leading digital Platform defining the industrial standard



ARISTOTELES

five continents. one solution.



WIND



SOLAR



HYDRO



BIOMASS



CONVENTIONAL
FIRED



STORAGE



ENERGY
GRIDS

Kaiserwetter

together for a brighter tomorrow

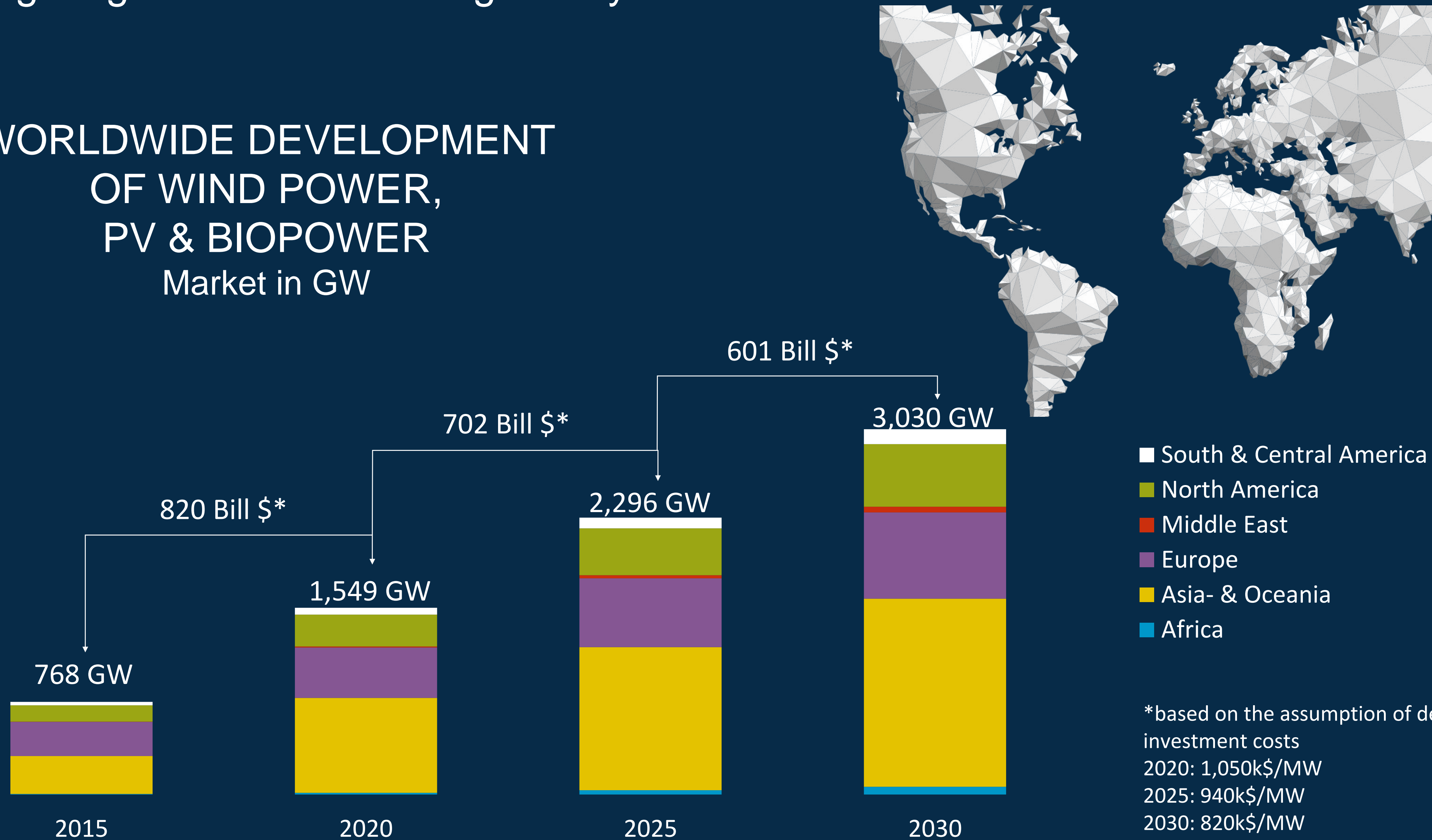
www.kaiserwetter.energy

BACKUP...



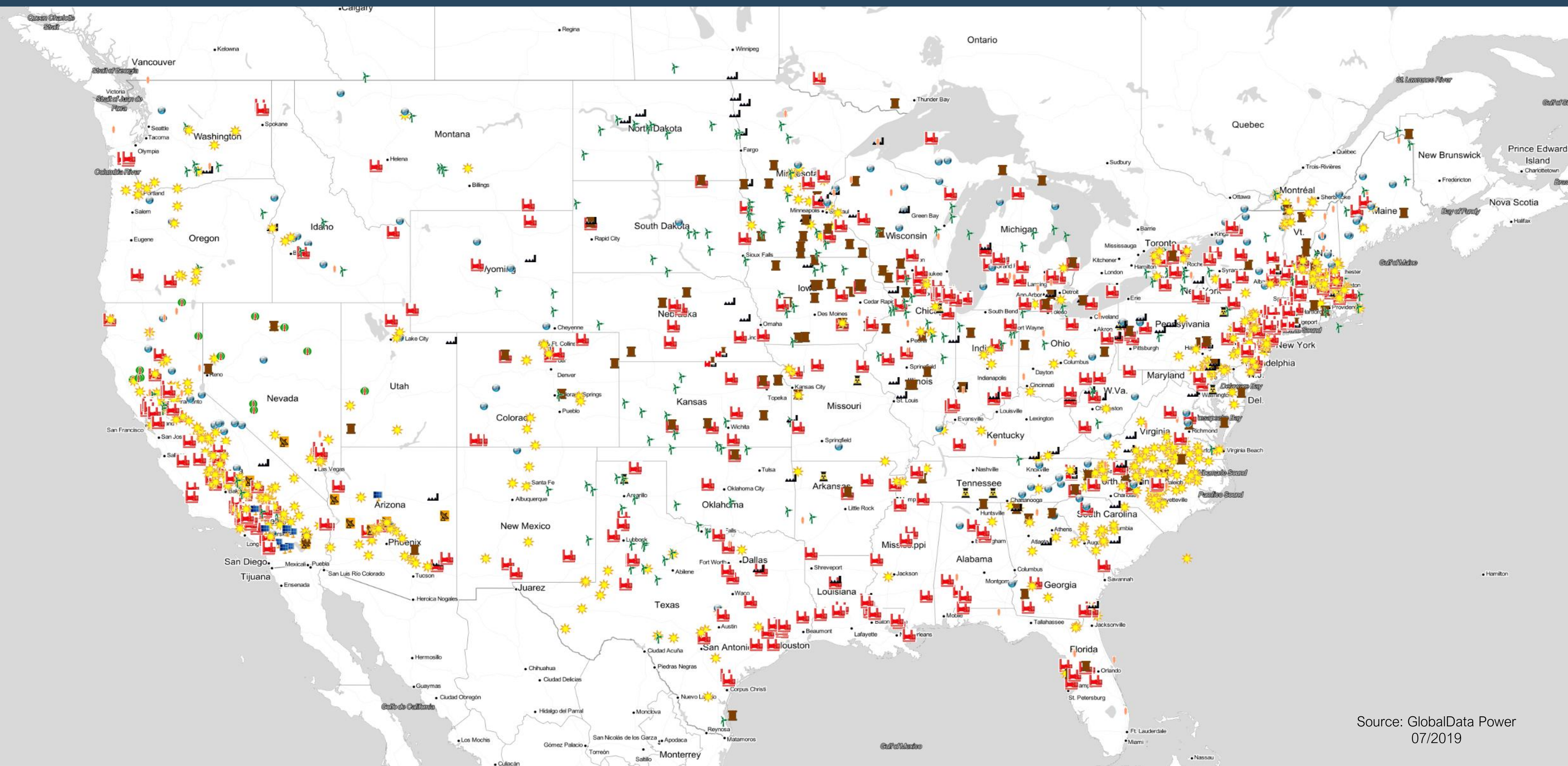
Capital of \$ 1,800 Billions has to be invested in Renewable Energy around the world targeting the future climate goals by 2030

WORLDWIDE DEVELOPMENT OF WIND POWER, PV & BIOPOWER Market in GW





The United States have enormous potential for the expansion of renewable energy while most of its existing capacity is located at the east & west coast



Source: GlobalData Power
07/2019

Cumulative installed capacity MW
1,219,613.91

Power consumption GWh
4,044,711

Power demand GWh
4,088,791

New investment in US\$ million (2018-2025)
421,636.66

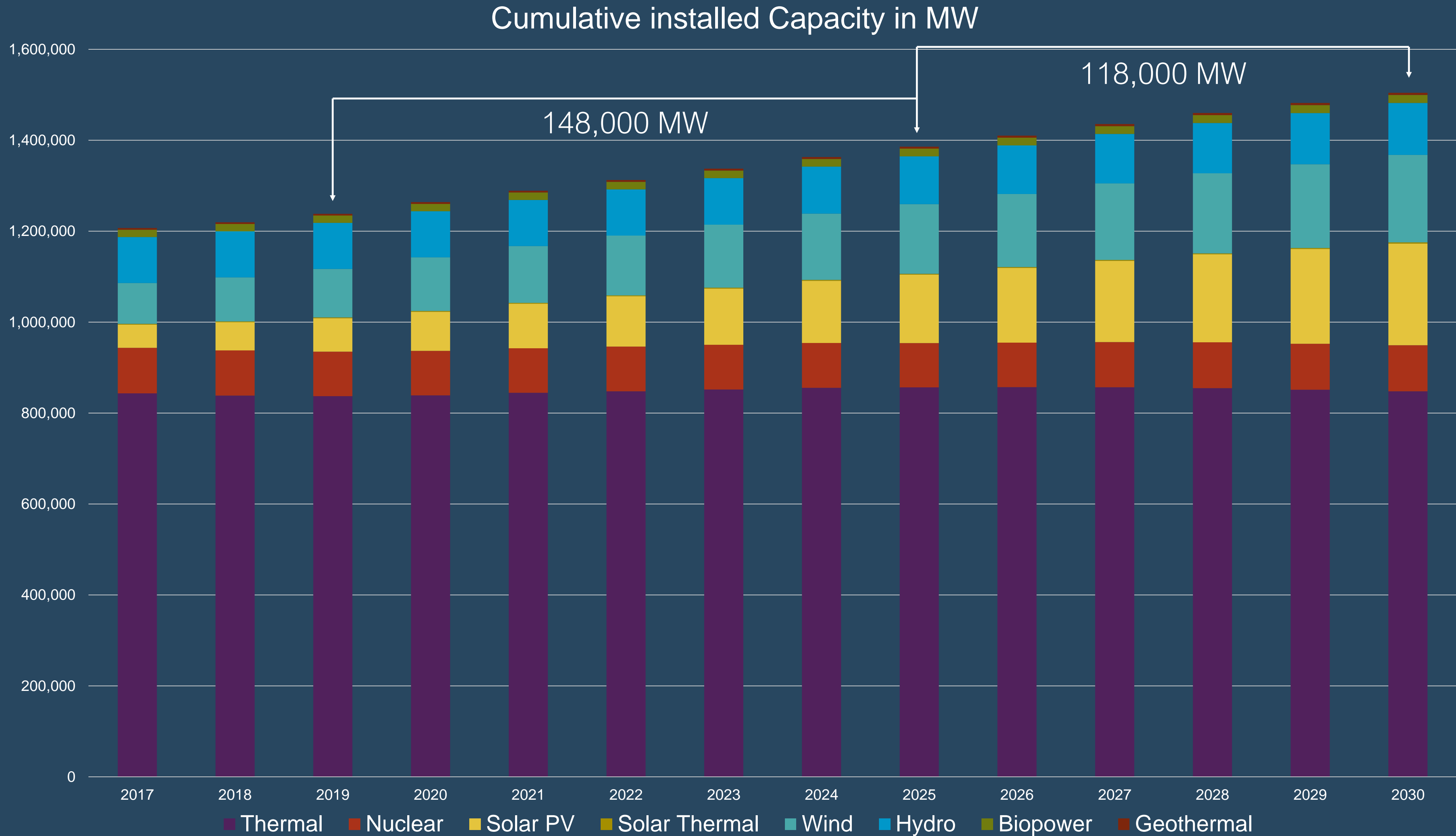
Population (million)
328.2

Number of power plants
17,032

Number of Deals
23,064



Between 2019 and 2030, the US market will invest \$ 250 billion for 266,000 MW in all kinds of energy generation assets





The share of renewable energies is enormous at \$ 237 billion for 252,000 MW. By contrast, the growth of conventional energies is slowing down

Cumulative installed Capacity of Renewable Energies in MW

