

ACTIVE

Renewable Energy Opportunities

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Industrial Energy
Consumers of America (IECA)

The Voice of the Industrial Energy Consumers

NEO Network

Global support team

Americas + EMEA + APAC

Global market intelligence + price insight

Peer networking + collaboration

Leading project + supplier solutions



accelerating New Energy Opportunities



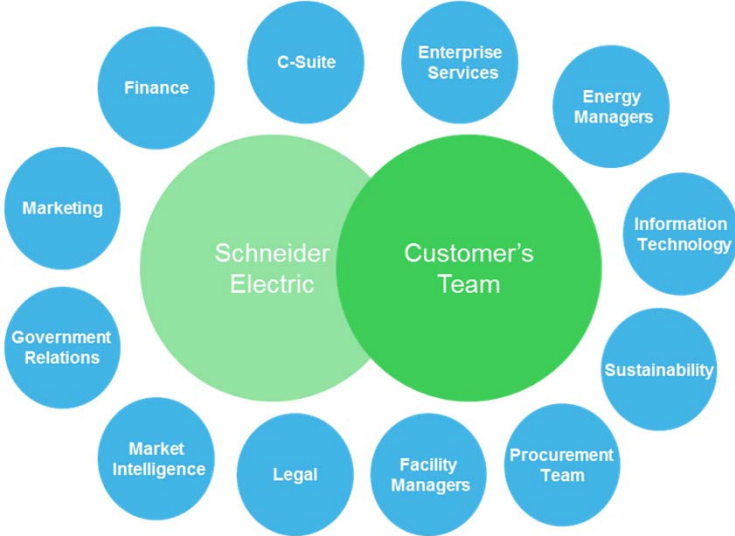
Schneider ESS as Your Renewable Energy Partner

Our Role

Full-service, independent renewable energy advisor to global organizations - from initial engagement through operations.

- Not a developer, technology provider nor financier of projects
- No conflict-of-interest with developers, utilities or retail electric providers
- Not owned or affiliated with a Utility or Electricity Supplier

Our mission is to make it ever easier for all organizations to embrace clean, renewable energy.



Key Market Trends

November 2018

1. Best time ever to buy offsite renewable energy in the USA.

- Offsite PPAs Ts/Cs are becoming more flexible and buyer-friendly via utilities and suppliers
- Window for historically low wind PPAs is closing quickly.

2. We expect REC prices to increase in the US throughout the rest of Q4.

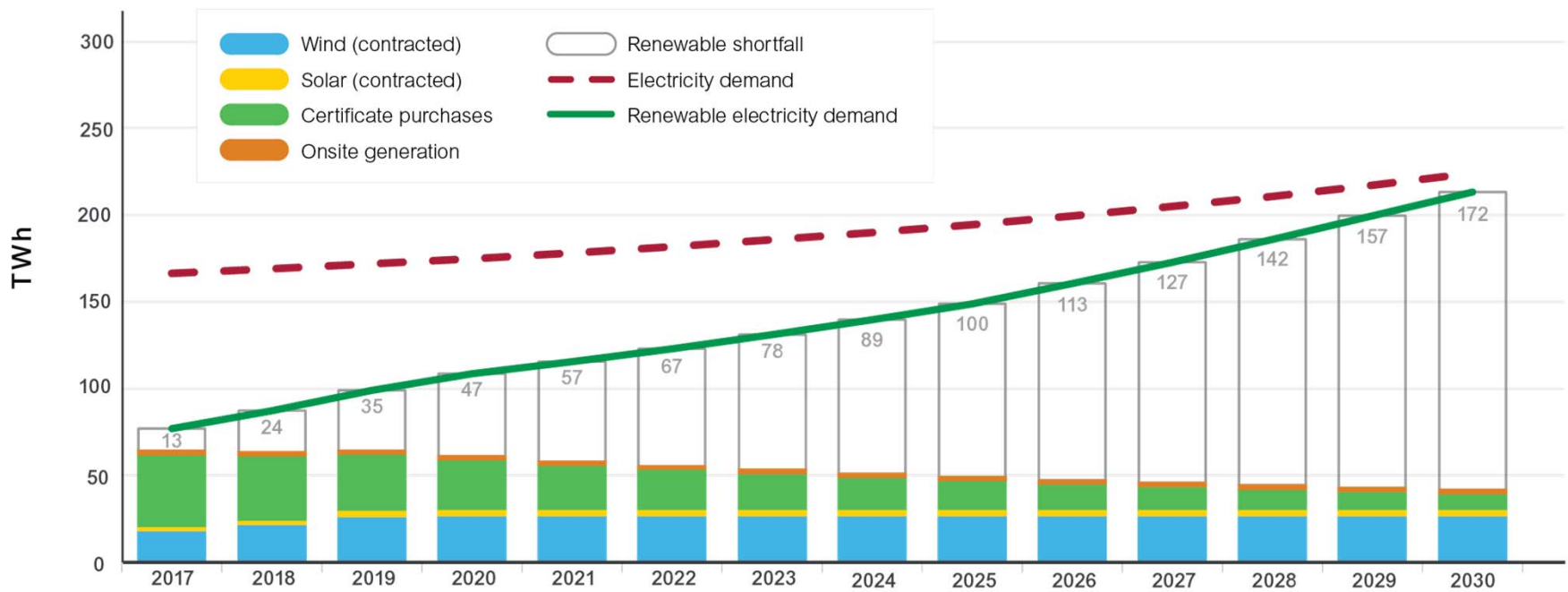
3. Potential for significant savings via onsite solar in Illinois.

4. Mexico energy reform = opportunity for large energy users to save money and reduce risk.

5. Europe offers excellent PPA procurement opportunities.

Renewable Energy Demand is Growing

The RE100 Projected Global Renewable Electricity Shortfall



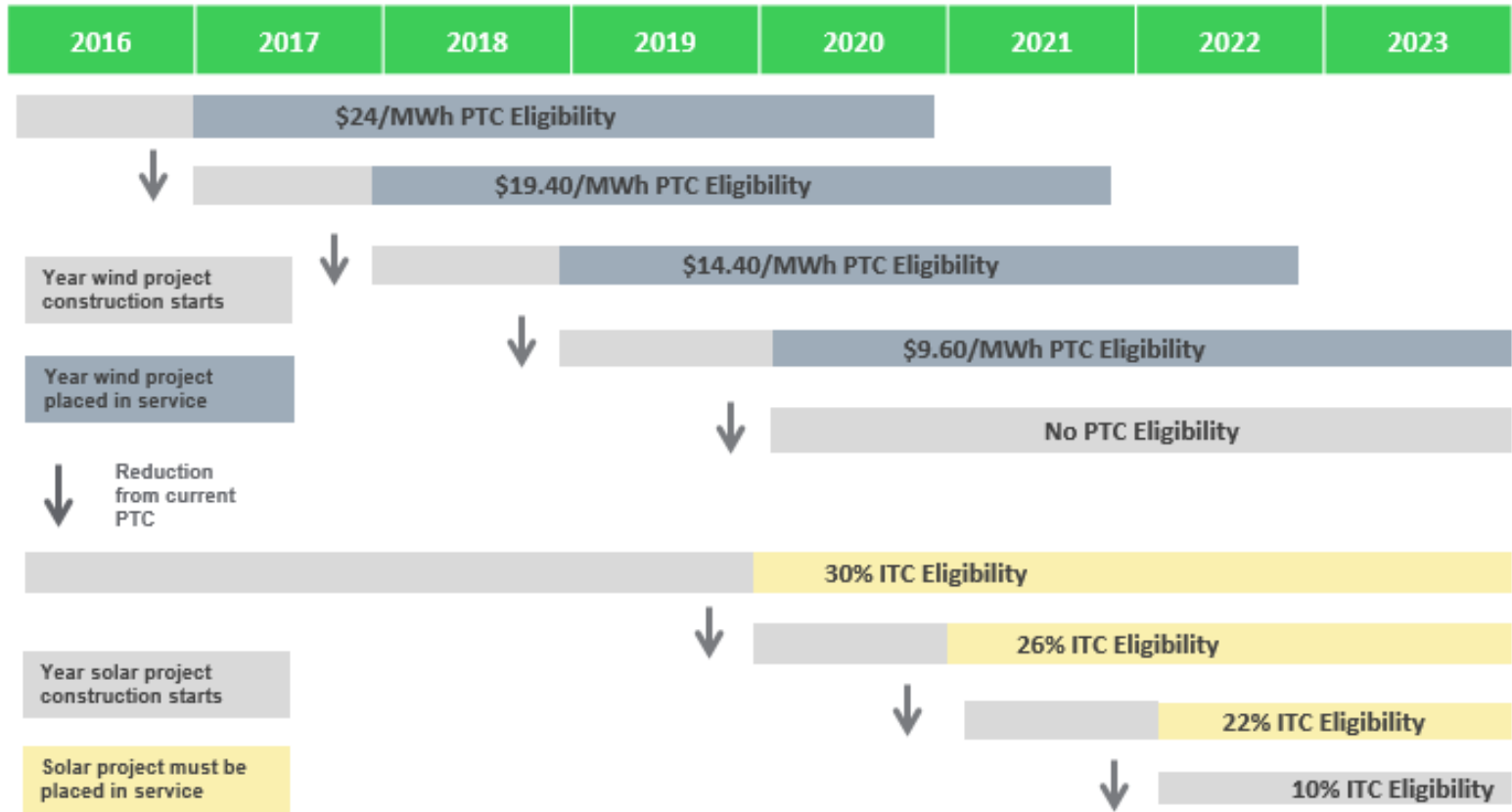
Source: Bloomberg New Energy Finance Note: Onsite PPAs not included. APAC number is an estimate. Pre-market reform Mexico PPAs are not included. These figures are subject to change and may be updated as more information is made available.

Contractual Instruments

Contractual Instruments	Hedge Effectiveness	Scalability	Low CAPEX / OPEX	Economic Upside	Additionality Benefits	Low NGO Scrutiny	Transactional Ease	Low Risk Potential
Energy Attribute Certificates (unbundled)	Requires Consideration	Readily Meets Goals	Meets Goals	Requires Consideration	Requires Consideration	Requires Consideration	Readily Meets Goals	Readily Meets Goals
Utility or Supplier Green Program	Meets Goals	Meets Goals	Meets Goals	Requires Consideration	Requires Consideration	Meets Goals	Readily Meets Goals	Readily Meets Goals
Onsite Renewables	Readily Meets Goals	Requires Consideration	Meets Goals	Meets Goals	Readily Meets Goals	Readily Meets Goals	Meets Goals	Meets Goals
Offsite PPA	Meets Goals	Readily Meets Goals	Readily Meets Goals	Readily Meets Goals	Readily Meets Goals	Readily Meets Goals	Requires Consideration	Meets Goals
Offsite Investment	Requires Consideration	Meets Goals	Requires Consideration	Readily Meets Goals	Readily Meets Goals	Readily Meets Goals	Requires Consideration	Meets Goals

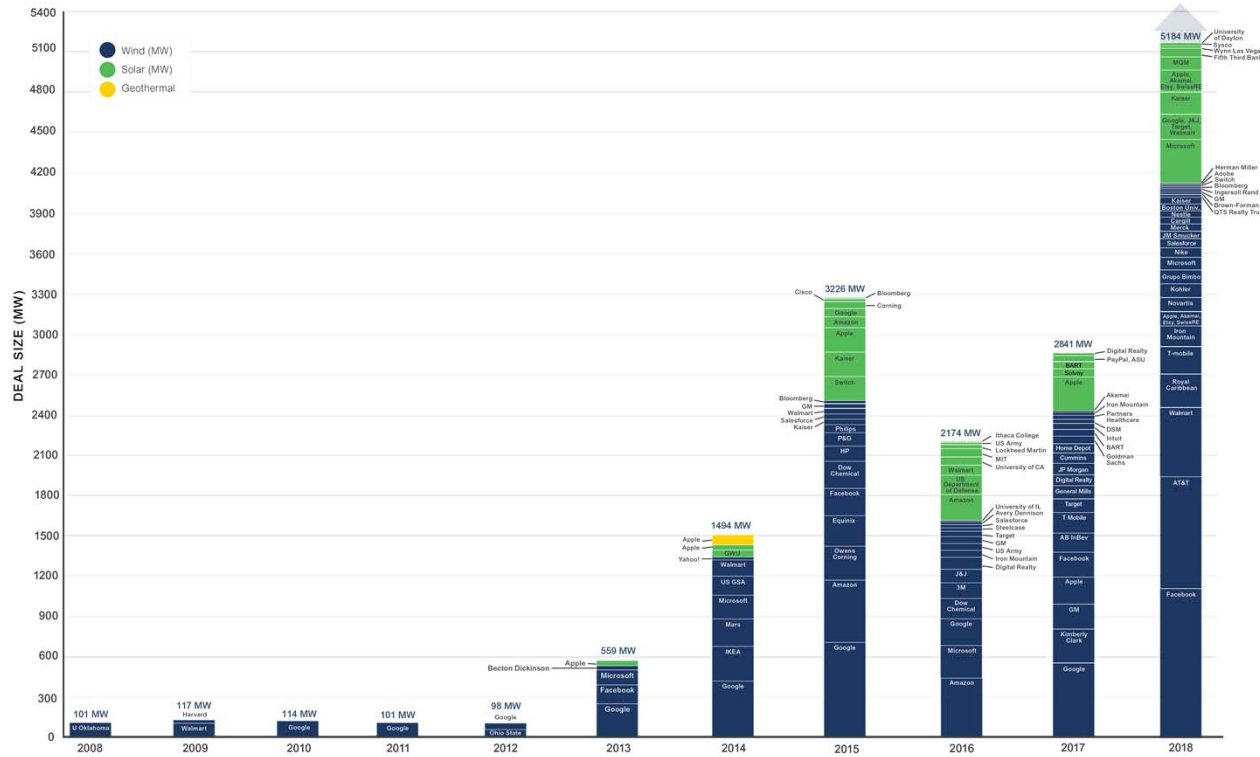
KEY	Readily Meets Goals	Meets Goals	Requires Consideration
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Tax Credits for Wind & Solar Are Stepping Down



Offsite C&I renewable energy deals in the U.S.

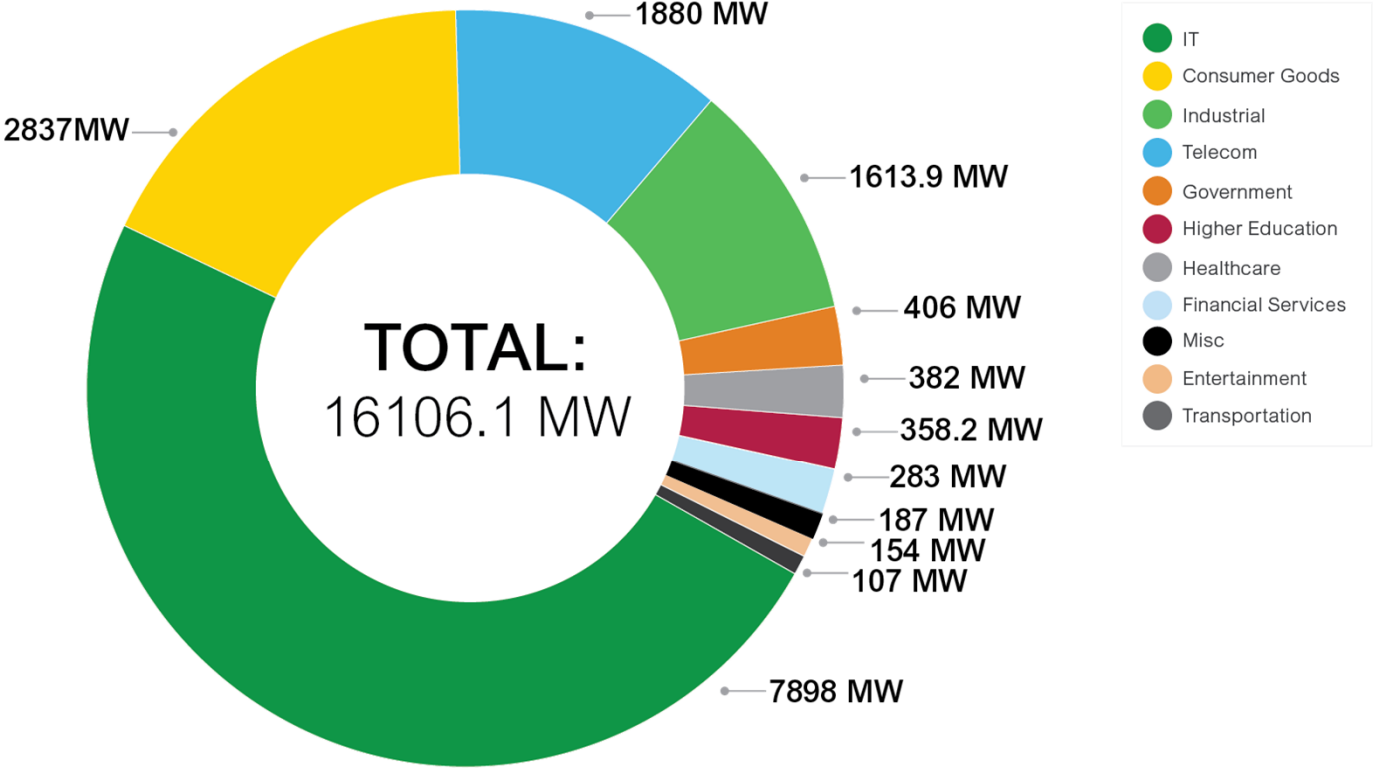
AGGREGATE OFFSITE RENEWABLE DEALS IN THE C&I SECTOR BY ENERGY TYPE*



*Based on publicly announced C&I offsite renewable energy deals (financial, virtual, green tariff, tax equity, etc.) in the United States. Excludes onsite PPAs. Last updated 10.18.18.

- Commercial, industrial, and institutional (C&I) procurement of long-term renewable energy PPAs increased dramatically, as renewables became cost-competitive in many global markets.
- Tech companies were early movers, but there is a continued diversification of industry sectors taking advantage of this current market opportunity.
- Organizations from telecom, automotive, retail, and financial sectors are increasingly taking advantage of renewable energy opportunities.
- Opportunities now increasingly available beyond North America

Aggregate Offsite PPAs in the C&I Sector by Industry



**Based on publicly announced C&I offsite renewable energy deals (financial, virtual, green tariff, tax equity, etc.) in the United States. Excludes onsite PPAs. Last updated 08.28.18.*

Recent Deal Examples– Renewable Energy (Large-Scale PPAs)



- **Deal Size (MW):** 75 MW wind PPA
- **Terms (# of years):** 15
- **Financial benefits, with key assumptions:** Located in PJM, but financially settled in MISO
- **Developer Testimonial:** “EDP Renewable North America worked with Schneider Electric on a renewable power transaction with Cummins in 2017. In that deal, Schneider was able to accomplish what was seemingly impossible—they were a relentless advocate for their client and a valuable source of guidance, but they were also a pleasure to work with from our - the developer’s - standpoint. All parties ended up with a transaction with which they were extremely pleased, and that outcome would not have been achievable without the diligent work of Schneider Electric.”
 - *Thomas Greer, EDP Renewables NAM*



- **Deal Size (MW):** 80 MW solar PPA
- **Terms (# of years):** 12
- **Financial benefits, with key assumptions:** Various historical, traded market, and forecast-based market pricing scenarios
- **Client Testimonial:** “Schneider Electric was an integral partner in each step of the process. They brought specialized expertise and capabilities that helped our many internal partners learn about power purchase agreements, issue an RFP, evaluate the results, select a partner, and negotiate an agreement. A core team within the bank worked closely with Schneider and coordinated with many other internal stakeholders to make this project happen.”
 - Scott Hassell, director of sustainability, Fifth Third Bancorp.

Case Study: BlueScope Steel

Largest corporate PPA in Australia

- Heavy industrial client
- Ran RFP for 50 GWh - 300 GWh
- Schneider services focused on both external, market-facing work, as well as internal education and engagement
- Significant financial modelling support
- Offers evaluated on various criteria, including price, risk profile, developer reputation and stability, contract term and structure
- Offers (from reputable, well-capitalized, stable providers) AUD 60-80 per MWh
- “The renewable PPA will help keep downward pressure on energy costs and support the gradual transition to renewable energy.” – John Knowlan, CEO



- Project: Finley Solar Farm
- Size: 88 MW
- Term: 7 years
- Consumption: 230,000 MWh
- GHG Reduction: ~300,000 tons CO2e

Case Studies – Renewable Energy & Cleantech

SunChemical

Started as resource optimization project for Carlstadt, NJ facility.

- Provided comprehensive bid analysis, support with contract negotiation, and assistance in securing credit
- Resulted in an onsite rooftop and carport solar PPA, saving facility approx. \$400,000 in electricity costs.
- Since 2004, SE has helped Sun save over \$12 million through commodity risk management, market analysis, utility bill management and strategic energy sourcing.

T-Mobile

International-based “Un-carrier” has signed VPPA agreements in the U.S. strategically investigating options across their portfolio to continue towards their goal of 100% renewable energy

- 160 MW from the new Red Dirt wind project in Oklahoma.
- Total project = 1,200 GWh of renewable energy annually – equivalent to the energy consumption of more than 97,000 U.S. households.

“Helps T-Mobile increase efficiencies and power the company’s operations across the US, including retail stores, call centers and network operations.”



Kimberly-Clark

Kimberly-Clark Pursued/signed a (second) offsite wind energy VPPA, building on their success from the first.

- 1,000,000 megawatt hours (245 MW) will reduce GHGs by up to 550,000 metric tons annually
- Surpassed original goal 4 years early
- Combined with approx. 100 other energy efficiency initiatives (US only)

“Significant multimillion dollar cost savings from energy and climate projects by 2022”



Q&A

Next Steps...

Legal Disclaimer

This presentation contains certain projections and other forward-looking statements. Such forward-looking statements (including projected NPVs) are based on a variety of estimates and assumptions that are inherently uncertain and are subject to numerous business, industry, market, regulatory, geo-political, competitive, and financial risks. There can be no assurance that any of such estimates, assumptions, and forward-looking statements will prove accurate, and the actual outcomes and financial performance of any renewable energy transactions may materially and adversely differ from the forward-looking statements contained herein.

Sample projects described in this presentation are hypothetical in nature. Actual project offers may vary.

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