



O&M AND CONSTRUCTION CONTRACTS

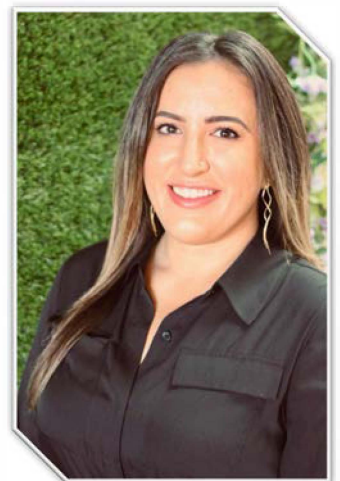
UT CLE / RENEWABLE ENERGY LAW ESSENTIALS

Katie Hoepfl, VP of BD & Contract Management

PRESENTER BIO



600+ service technicians
Over 4 million work hours
Post-COD Services & Parts including Long term
O&M, major component exchanges, & repowers



KATIE HOEPFL, VP Business Development & Contract Mgmt.

- Been in the solar industry since 2011, beginning as a Reliability Engineer
- Started the Performance Engineering division at a now leading EPC firm
- Managed First Solar's construction contracting with third party EPCs
- Signed over 6GW of O&M contracts at First Solar and following their sale of that business
- Facilitated the start of RNWBL's long term O&M division with 2GW of O&M contracts to date



TOPICS WE WILL COVER

Commitments that require attention to T&Cs

- Performance guarantees
- NERC GOP or GO registration

Common legal provisions – what’s typical in renewables?

- Lien waivers
- Financial Security
- Termination

Risks in renewables to be aware of (and ask your engineers about!)

- access to spare parts
- natural disasters such as hail and wildfires



COMMITMENT TO SAFETY

Safety is our #1 core value	While productivity, cost and quality are core business values, we will not compromise safety
We waste ZERO opportunities to learn	We have an organizational expectation among our vendors to take full account regarding their failures
4 Fundamental Principles	Our Safety culture is based on four fundamental principles: Accountability, Empowerment, Transparency, and Continuous Learning
DontSTART until ready & STOP when unsure	Employees are encouraged to Stop Work & Start Work & Start Work & Start Work

RNWBL, LLC and its operating companies believe in fostering a safety culture around four guiding principles:



CONTINUOUS LEARNING, TRANSPARENCY

Our safety programs are integrated with our existing methodology and is a top priority & commitment by all employees.

Our guiding principles are applied by:

- All employees are accountable for the success of our culture
- Accurate & Transparent reporting of incidents / lessons learned
- Leveraging our training facility and LMS to manage and provide quality, effective, & timely EHS training
- Prioritizing leading indicators to focus more on the positive steps we take to prevent incidents from occurring
- Continuing to develop and improve our safety & training programs
- Sharing lessons learned and implementing corrective actions for all incidents

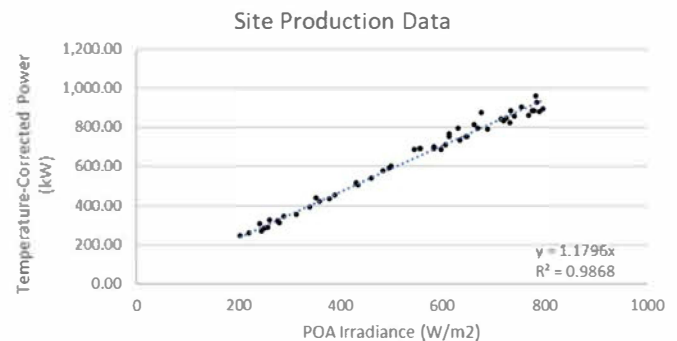


PERFORMANCE GUARANTEES - EPC



Contractor guarantees the plant will achieve designed production levels which financial models are based on.

- Industry standard testing methodology designed to prove out production capacity of the plant.
- LDs established commensurate to a percentage of Owner's revenue loss if plant unable to achieve designed capacity.
- Such guarantee levels are often dictated by project sponsors.



EXAMPLE: Solar EPC Testing based on ASTM E2848

Source: Pure Power Engineering

Solar, Wind and Battery Storage have similar commercial structures and implications, with different testing methodology.



PERFORMANCE GUARANTEES - O&M



Contractor guarantees intended to protect project performance typically over a 1yr period. Applies to Solar, Wind and Battery Storage.

- Production-based vs. Time-based
- Punitive LDs of 2-5% per 1% under guaranteed level, capped at 15-30% of such year's Fixed Fees.
- [Optional] Bonus above guaranteed level.
- Such guarantee levels are often dictated by project sponsors.
- Low availability can trigger default on PPAs or loans.
- Excuse Events for outside of Contractor's Control
- Additional annual guarantees from OEM in some cases (i.e. battery storage).

TYPES OF EXCUSE EVENTS

FORCE MAJEURE
CURTAILMENT
GRID EVENTS
OWNER DELAY
BOP OUTAGE
SPARE PARTS
SERIAL DEFECT
PEST DAMAGE
WARRANTIES
MAJOR CORRECTIVES



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Title search: Overview on Construction and O&M Contracts

Also available as part of the eCourse

[Overview on Construction and O&M Contracts](#)

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"Overview on Construction and O&M Contracts"