



## NASBP 2021 Virtual Events

April 28 - Present Through the Unprecedented: A Positive Look  
Towards Our Future

# The Future is Bright with Solar Bonds

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## Nathan Wonder

Bond Manager at LaPorte Insurance

Theatre

Chess

Whiskey

Woodworking



OFFICIAL SELECTION  
Shakespeare festival  
ON PARK  
6TH, 13TH



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LUCY



JACK  
(in the box)

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## WHAT ARE WE TALKING ABOUT?

### Large solar farms

- Utility Scale
- Large Commercial
- Community Solar



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## WHAT WE ARE *NOT* COVERING...

The History of Solar Power  
Solar Industry Innovations  
Technical Specifications  
Anything that can be easily Googled  
Residential Solar  
Solar Insurance

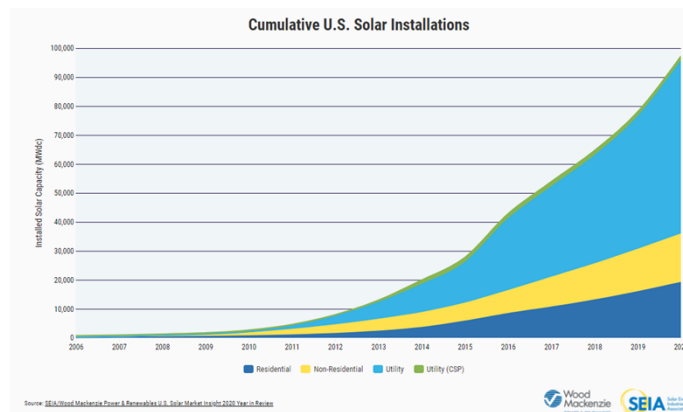


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## WHY ARE WE TALKING ABOUT THIS

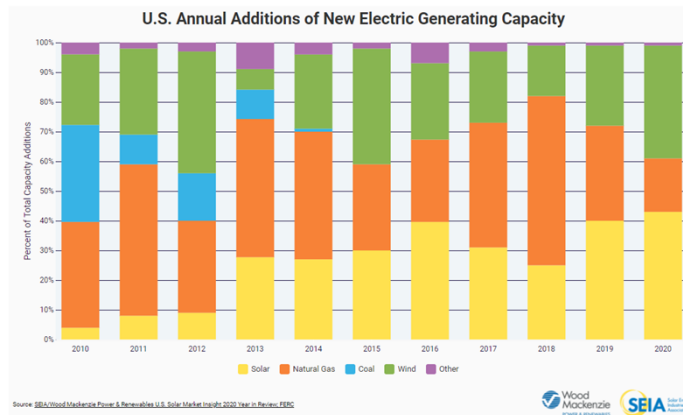


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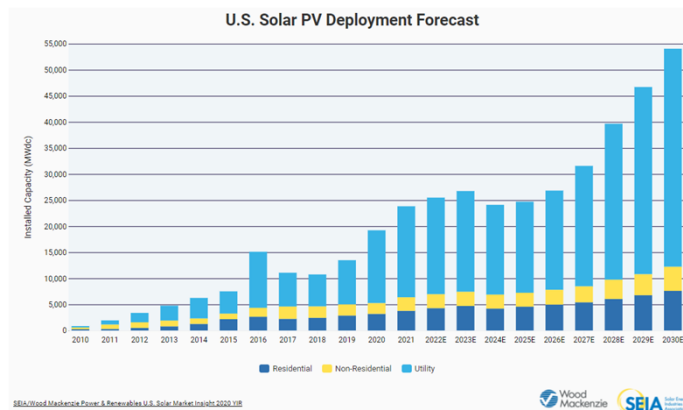
# WHY ARE WE TALKING ABOUT THIS



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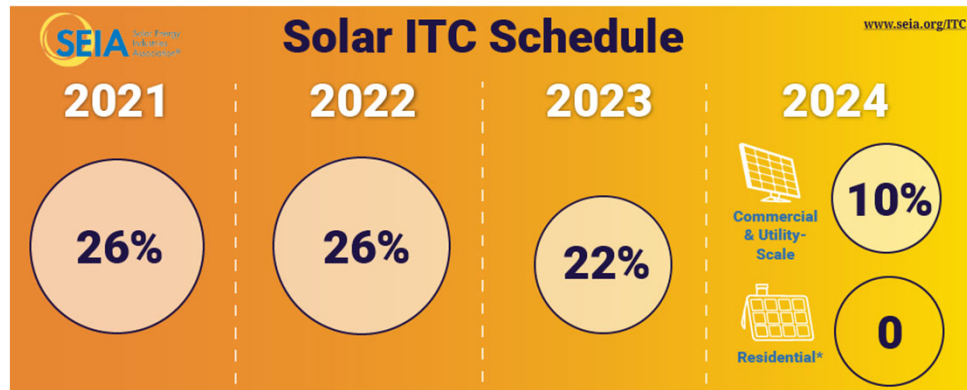
# WHY ARE WE TALKING ABOUT THIS



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## WHAT IS DRIVING THIS GROWTH?



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## HOW IS SOLAR BONDING DIFFERENT?

Types of Bonds

Common Issues

Next Steps



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# TYPES OF BONDS

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## TYPES OF BONDS

### "NORMAL" BONDS

License & Permit  
Right of Way  
Erosion Control  
Release of Lien  
Performance & Payment\*

### "FUN" SOLAR BONDS

EPC (Engineering, Procurement, & Construction)  
Decommissioning  
PPA (Power Purchase Agreement)  
IX (Interconnection Agreement)  
Procurement  
  
& More!



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# EPC

## (Engineering, Procurement, & Construction)

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These contracts guarantee performance and payment for the turnkey building of a renewable energy project. Short construction time, high material cost, and relatively simple design make these bonds attractive to most sureties.

Who are the parties involved?

- Dual obligee?

Bonding

- How is this different from traditional construction?
- Contract or Commercial?
- Bond Amount?



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# Decommissioning

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Every project has a lifetime after which it is no longer cost effective to continue operations. At that time, the project needs to be decommissioned. The goal is to remove the installed power generating equipment and return the site to its pre-construction state.

When does a project need to be decommissioned?

Bond Amount

- Statutory
- Calculation
  - Salvage value?
- Other

Duration



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# PPA (Power Purchase Agreement)

Utilities contract with power producers to purchase a certain amount of power at a specified rate. This Power Purchase Agreement requires a security to guarantee the power plant will actually generate this power as promised.

Who are the parties involved?

Benefits of a PPA

PPA alternatives

- Community Solar (HOT)
- Hedge (NEW)

Who posts security?

Bond underwriting

Other bonds associated with PPAs

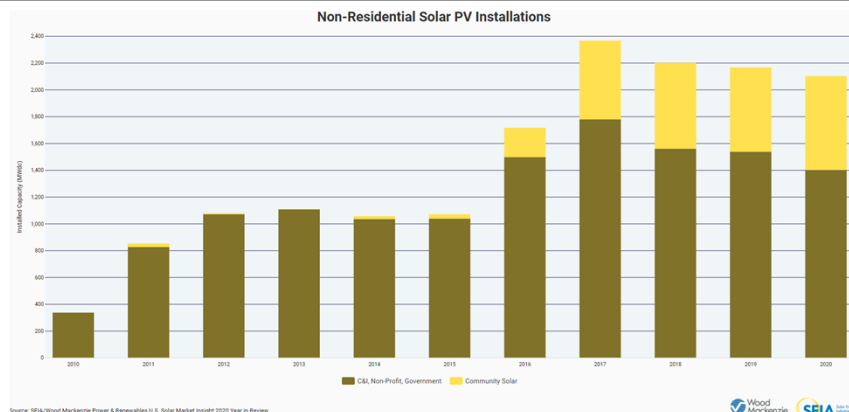


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# Community Solar



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# Interconnection Agreement

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Utilities require contracted power generating facilities to be plugged into the grid. This complex process typically requires a security to guarantee performance and/or payment.

## Lingo

- IX, IA

## Parties involved

## Work being done

## Performance versus Payment

- Pay-as-you-go
- Lump Sum
- Built into PPA?



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# Procurement

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Purchase orders for modules, inverters, and other materials usually require not only a deposit, but also additional security to cover a portion of the full purchase order cost while in transit.

## Materials

## Parties involved

## Typical security solutions

- Financial Guarantee



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# Common Issues

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## Common Issues

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Underwriters' lack of familiarity

Large, messy failures

Start-up clients

- Large bonding requirements
- Experience?
- Complex ownership/org charts
- Financials

Onerous bond forms

Counterparties

Projects change hands frequently



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## Org Charts



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## PROJECT OWNERSHIP STRUCTURES

Developer  
Contractor  
Operator  
Owner

Mix

Who in the organization is asking for the bond

New owner needs to take over old bonds

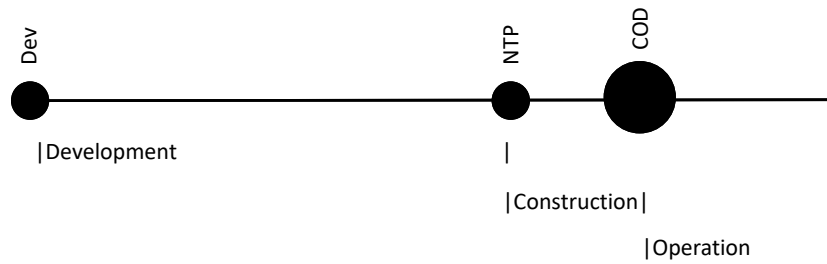


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## Development Timeline & Bonding

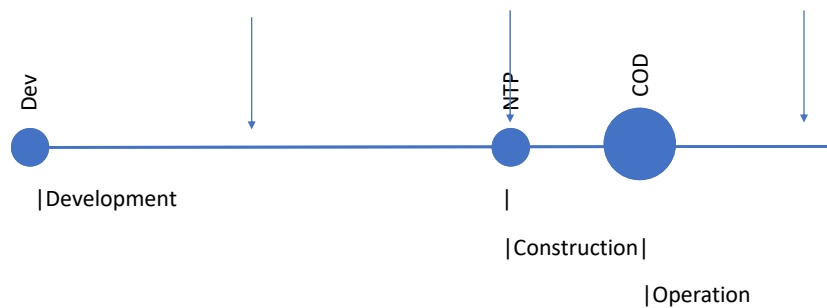


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## Sales Timeline & Bonding



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# Bond Forms

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## Nonstandard Bond Forms

- NOT a Letter of Credit

## Bond Form Negotiation

## Duration

- Annual form

## Forfeiture Language

## Suicide Clause

## Pay-on-Demand



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# Next Steps

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# Next Steps

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## Additional Points of Interest

- Community Solar
- Storage
- New PPA Contracts

## Further Research

- Solar Power World
  - Top 500 Solar Contractors
- SEIA
- Solar Power International (SPI)
- Local Renewable Energy Associations
  - OSSIA
  - Renewable Northwest



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