Inflation Reduction Act

- **Passed in August of 2022**
- **$370 Billion to fund Clean Energy**

TOTAL REVENUE RAISED	**$739 billion**
15% Corporate Minimum Tax	*313 billion**
Prescription Drug Pricing Reform	*288 billion***
IRS Tax Enforcement	*124 billion***
Carried Interest Loophole	*14 billion**
TOTAL INVESTMENTS	**$433 billion**
Energy Security and Climate Change	*369 billion****
Affordable Care Act Extension	*64 billion***
TOTAL DEFICIT REDUCTION	**$300+ billion**

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Inflation Reduction Act

- **STC Fixed at 30%**
  - $1 = $0.30
  - 30% STC + 45% LIHTC = 75%
- **STC doesn't reduce LIHTC anymore**
- **Expanded eligible STC Costs**
  - Reflective Roofs

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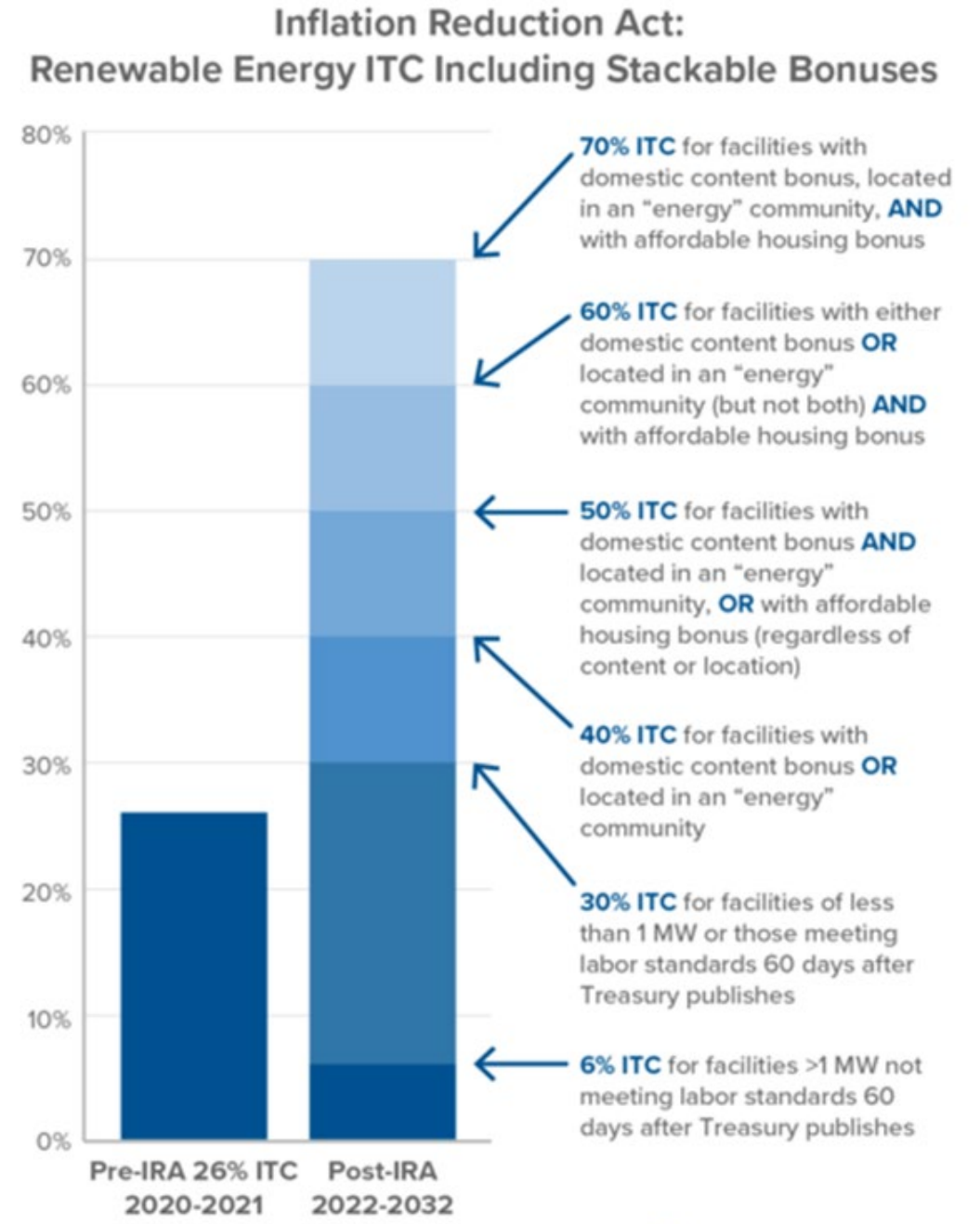
More than 30%

- **10% Bonus: Domestic Production**
  - 40% build in USA
- **10% Bonus: Energy Community**
  - Coal plant or mine areas
- **20% Bonus: Affordable Community**
  - Limited amount of bonus
  - Residents get 50% of solar 'benefit



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CASE STUDY: Cottonwood Ranch

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CASE STUDY: Cottonwood Ranch

- Casa Grande, Arizona
- 300 Units
- 3-Story Garden Style Walk Ups
- ~15 Acres
- All Electric Property
- Owner Pays All Electricity
  - 2 total electric meters

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CASE STUDY: Cottonwood Ranch

- 2,452 Total Solar Panels
  - 1,850 Solar Carports Panels (75%)
    - 311 Parking Spaces (57% of 544 total)
- 602 Panels on Roofs

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CASE STUDY: Cottonwood Ranch

Why so many solar carports?

- **Covered Parking is an amenity and something we would already do**
  - Typically cover 50% of parking stalls, especially in AZ
- **Carports require a lot of steel, which is made in the USA**
  - 10% Domestic Content bonus!

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CASE STUDY: Cottonwood Ranch

System Specs:

- **Nameplate: 1 Megawatt AC**
  - Best to keep systems <1 MWac
- **Production: 2 Gigawatt Hours/Year (GWh)**
- **Property will need about 2.8 GWh/year**

So that's a 70% offset!? But wait…

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CASE STUDY: Cottonwood Ranch

Electric Bills = Consumption + Demand Charges

Consumption = Base kWh x Price kWh

Demand = Additional Charges during Peak Hours

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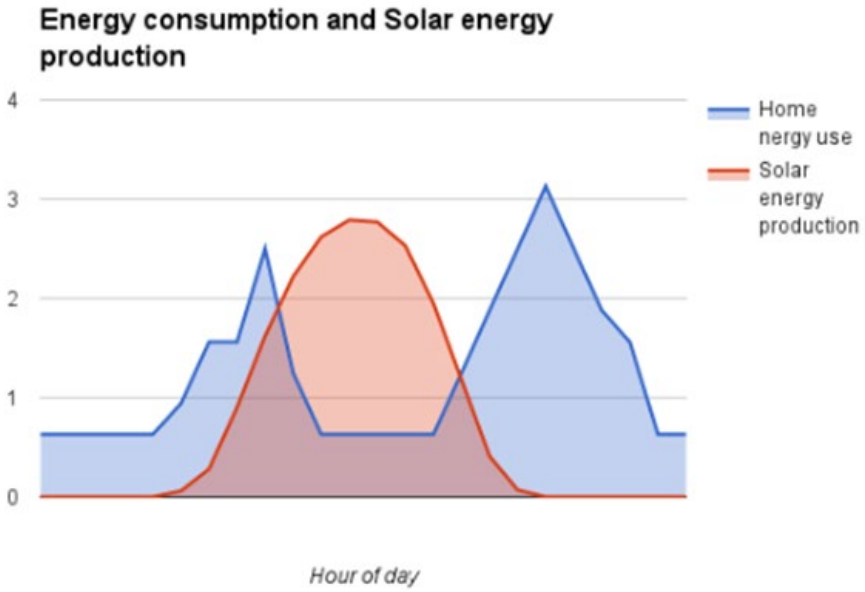
CASE STUDY: Cottonwood Ranch

What are Demand Charges?

Utility Providers got smart and use Demand Charges to compensate for differences between production and consumption…



Summer Rates JUNE 1 – SEPTEMBER 30			
Rate	Off-Peak 18 HOURS 7PM – 1PM	Mid-Peak 2 HOURS 1PM – 3PM	On-Peak 4 HOURS 3PM – 7PM
Time of Use (TOU)	$0.11/ kWh	$0.19/ kWh	$0.27/ kWh

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CASE STUDY: Cottonwood Ranch

- **With Demand Charges our total Electric Cost Savings is only 40%**
- **Storage has the ability to offset Demand Charges**
  - STC eligible
  - Technology is getting there but still costly and not long-term friendly

- **All in all, it is still makes sense….**

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CASE STUDY: Cottonwood Ranch

- **The Math**

COST	
System Costs	$4,000,000
LIHTC @ 45%	($1,800,000)
STC @ 40%*	($1,600,000)
Net Costs	**$600,000**

Benefit	
Without Solar	$320,000
With Solar	($180,000)
Annual Savings	$140,000
Debt Constant	7.0%
Net Benefit	**$2,000,000**

NET SOLAR BENEFIT	$1,400,000

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*Domestic Content Bonus due to majority solar carports (steel)

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CASE STUDY: Cottonwood Ranch

- **The Math**

Payback	
Costs	$600,000
Annual Savings	$140,000
Payback	4.2 Years

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CASE STUDY: Cottonwood Ranch

Benefits:

- **Solar infrastructure costs can be LIHTC basis eligible**
  - +75% Cost Offset
- **Easier to "electrify" your development… the future and more stable**
- **Utility use reduction and savings**
  - 70% consumption savings // 40% electric bill savings on Cottonwood
- **Solar carports are an amenity**

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CASE STUDY: Cottonwood Ranch

What We've Learned:

- **Design Implications**
  - Architect, electrical, structural, civil, general contractor/electrician, etc.
- **All electric systems are currently more costly**
  - Ex: DHW higher up-front and on-going costs
- **Utility Provider Coordination**
  - Understand Demand vs. Consumption charges for underwriting
  - Large Scale solar requires 'master-metered' electric on LIHTC Properties

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CASE STUDY: Cottonwood Ranch

What We've Learned:

- **Hire good consultants**
  - Solar (design/production), Energy (consumption), Electrical Engineer (site electrical design), and dry utilities coordinator are essential.
- **Utility Allowances**
  - Ex. Florida approved UA with solar offset
- **Who is paying you for the ITCs?!**

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