NexGen Energy Partners

Recognizing the Economic Benefits of Distributed Wind Projects

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NexGen Energy Partners, LLC

- 3rd Party Renewable Energy Partner
- Technology agnostic
- Commercial scale (100kW – 3MW)
- National Footprint
- Public project focus

A Personal Perspective
(on the distributed energy sector)

- Technology, Policy, Manufacturing/Sales, Project Ownership
- Direct project experience across over a dozen states with several dozen utilities
- Appreciation for the rural electric/municipal perspective
- Nearly all projects have been rural
- Rewarding
  - Economic impact
  - Social/leadership impacts

Outline

- What is “distributed” wind?
- Near term benefits
- Comparison of scales
  - Utility
  - Commercial distributed
  - Residential distributed
- Evolution of the Renewable Marketplace
- Activating/Managing/Leveraging the opportunity

What does "distributed" wind typically mean?

- Tied to a specific end-use
- Between 50kW and 1MW in size
- At distribution voltage
- Rural but not remote
- Installed by "local" service providers

Perspective

Utility-scale Wind	Distributed Wind
Land lease payments	On-site savings
Tax revenues	Tax stability
Reduced energy cost volatility	Reduced rate volatility
Long-term predictable costs	Long-term predictable costs from PPA
Demand for local services and supplies	Demand for local services and supplies (a greater percentage can remain local)

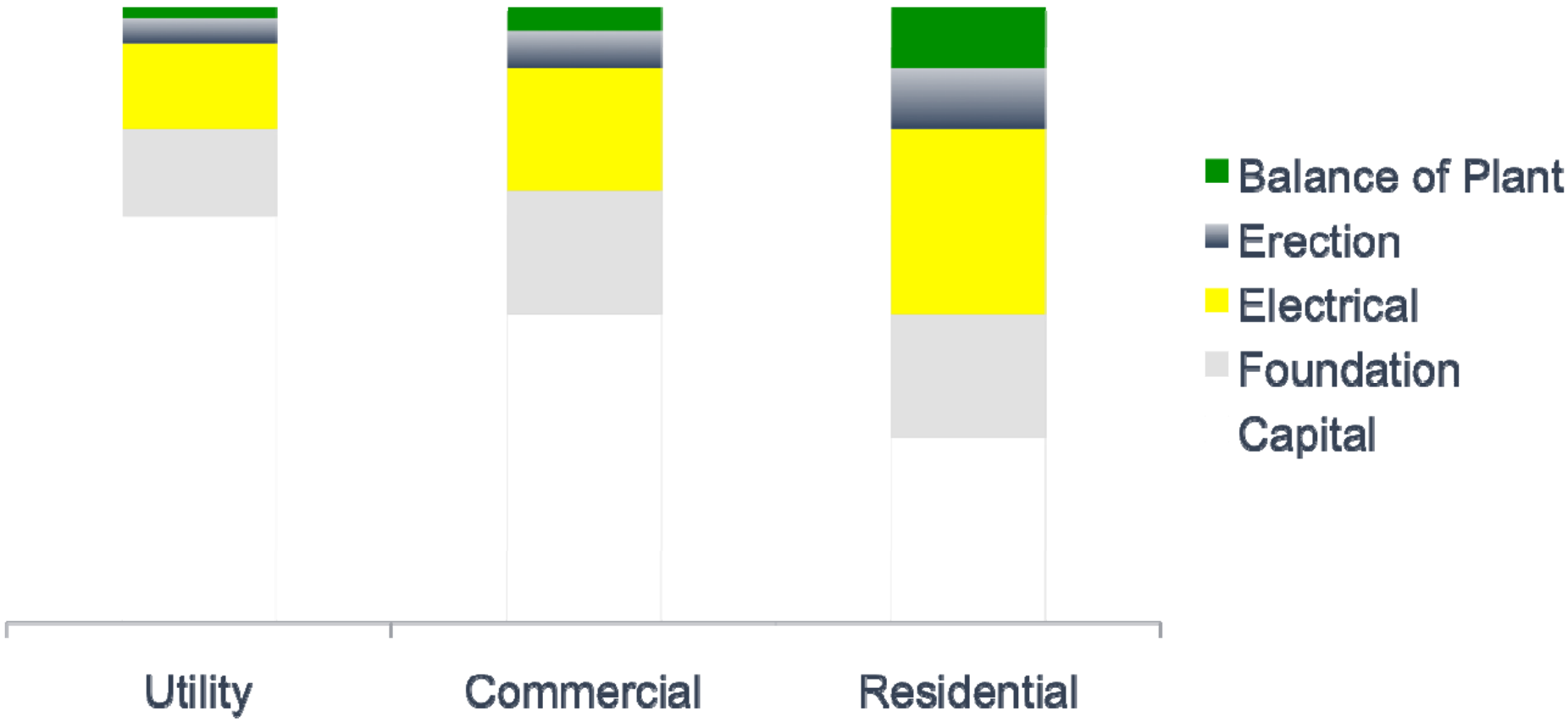
Comparisons

Residential	Commercial - Scale	Utility - Scale
Fewer metered connections per MW installed		
Scale = replications = expertise		
	“meaningful” scale that leverages existing infrastructure	
	Quick development cycle (months)	

23 days

Big but manageable

Near Term Benefits of Wind Comparison of Scales



Evolution of the RE marketplace

- Cautious observation
- Movement from PPA to Ownership of utility-scale projects
  - Risk/Benefits are better understood
- Activity in private ownership of large numbers of residential-scale (PV) projects has begun to move beyond CA
  - Power of Scale coupled with retail rate power
- Commercial-scale projects are a logical next step for utilities
  - Expected to require partnerships

Activating the Distributed Benefit

- Stage 0
  - Tolerate (appreciate?) the trail-blazers
  - Learn from their mistakes
- Stage 1
  - Identify potential pilot projects
    - Customer base
    - State energy offices
- Stage 2
  - Identify development/owner partners
    - State energy offices/Local ED operators
    - Renewable Energy Associations
  - Manage the connection
    - Mature the relationship(s)
  - Own the image and benefits
- Stage 3
  - Full vertical integration of renewables (ownership)
  - Transition from Stage 2 to Stage 3 depends on unique market elements (density, project size, technology)

Things to consider

- Ohm's Law
  - Driving force (Volt)
  - Resistance (Ohm)
  - Flow (Amp)
- Renewables
  - Technology, Policy
  - Physics, Permitting, Perception
  - Acceptance, Adoption, Action

Things to Consider

- Technology
  - Established track record (“thousands” of V47s)
  - Flux (scale, availability, quality)
- Policy
  - Strong motivator
  - Economics (rebates vs. tax credits)
    - Customer-owned utilities are disadvantaged
  - Experience
    - Studies are plentiful
    - Talk is cheap
    - Track Records are priceless

Thank you!

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