



Financing Port Energy Projects

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Overview

Financing Energy Projects Generally

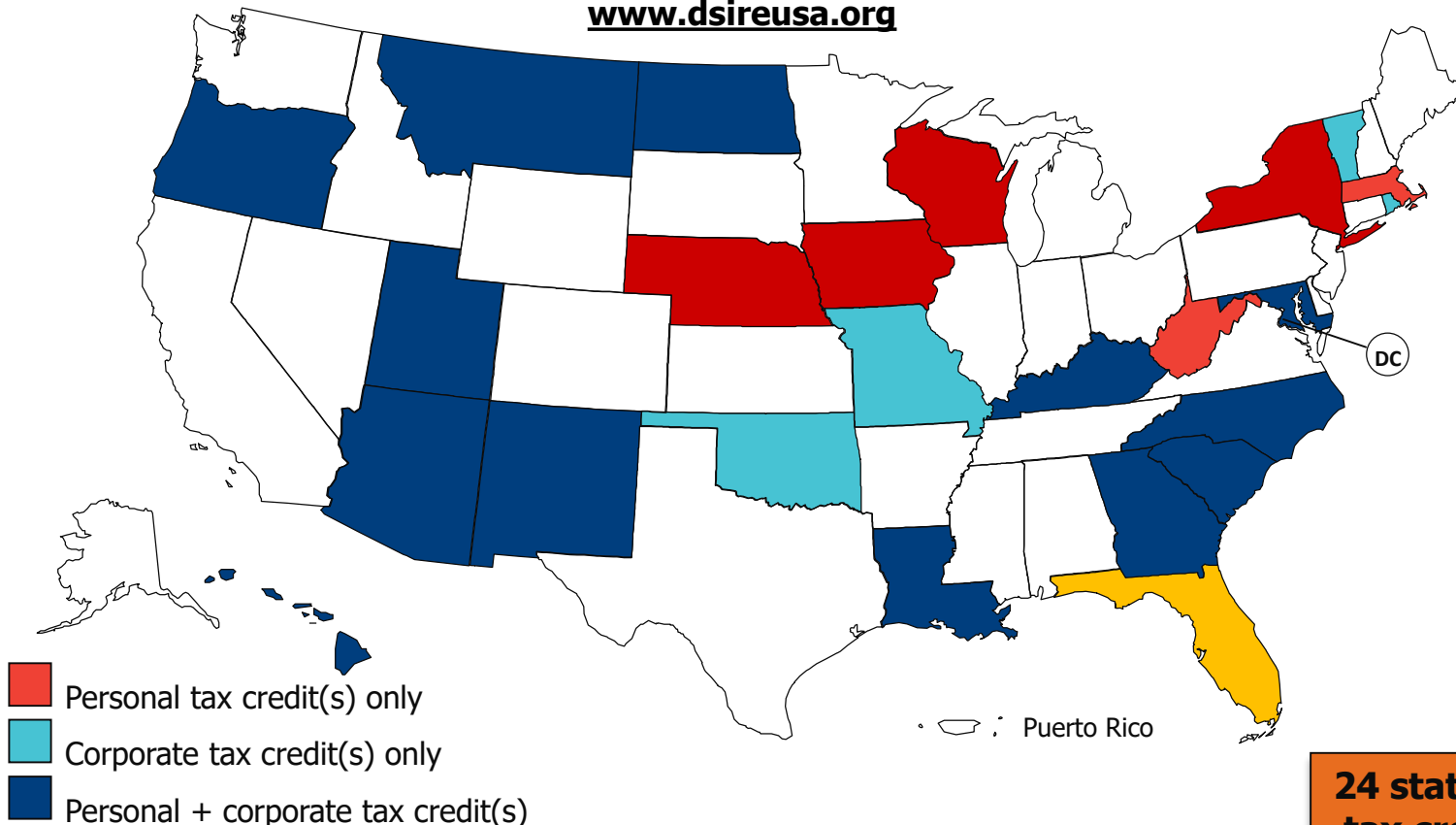
- Project Finance
 - Recourse only to assets of the project
- Cash Equity
- Debt
 - Construction debt
 - Term debt
 - Back leverage debt
- Tax Equity
 - Monetizing the tax incentives
 - Renewables in the US

Key Renewable Energy Tax Incentives

- State Tax benefits
 - Tax credits
 - Property/Sales tax exclusions
- Federal Tax Policy
 - Production Tax Credit
 - Investment Tax Credit
 - Accelerated Depreciation
 - Bonus Depreciation

State Tax Credits for Renewables

www.dsireusa.org



Federal Tax Benefits-PTC

- Production Tax Credit
 - Tax credit based on production for first 10 years of operation
 - Amount
 - \$0.023/kWh for wind, geothermal, closed-loop biomass
 - \$0.012/kWh for other eligible technologies
 - Eligible Technologies:
 - Wind
 - Geothermal electric
 - Biomass
 - Hydroelectric
 - Municipal solid waste
 - Landfill gas
 - Tidal/wave
 - Ocean Thermal

Federal Tax Benefits-ITC

- Investment Tax Credit
 - \$1 of tax credits are worth \$1
 - Amount
 - 30% of investment for solar, fuel cells, wind
 - 10% of investment for geothermal, microturbines and CHP
 - Begins to step down for solar in 2020 and in 2017 for certain other technologies
 - Eligible Technologies include:
 - Solar
 - Wind
 - Geothermal heat pumps
 - CHP
 - Fuel Cells
 - Microturbines

Federal Tax Benefits-Depreciation

- Accelerated Depreciation (MACRS)
 - Allows accelerated depreciation deductions of eligible equipment over 5 years
 - Eligible equipment
 - Variety of solar-electric and solar-thermal technologies
 - Wind
 - Fuel cells and microturbines
 - Geothermal electric
 - Combined heat and power
 - Biomass and marine energy—7 years
- Bonus Depreciation
 - A 50% first-year bonus depreciation deduction
 - Begins to phase down in 2017

Basic Tax Benefits

- Tax benefits (credits/losses) are:
 - Not transferable
 - Not refundable
 - Generally not usable by anyone other than C corps
- Tax Equity loosely groups around three structure types – with large variations in each group.
 - Partnership Flip (most common)
 - “Paygo” structures
 - Sale-leasebacks
 - Inverted Lease (lease pass-throughs)

How a Tax Exempt Entity can Finance Projects

- Own the project
 - Could issue tax-exempt debt to finance it
 - 10% private business use limitation
 - Could convert to “private activity bond” but limited
 - A not for profit entity cannot use the tax benefits
- Lease the project
 - Invalidates investment tax credit
- Buy the electricity
 - Private party can claim tax subsidies

Buy the Electricity—Physical PPAs

- Physical PPA
 - Behind the meter, On-site generation
 - Third party owner that utilizes tax benefits => lower rate for electricity
 - Physical limitations on size
 - Off-site—purchase at point of Project interconnection
 - Only permitted in limited states (e.g., Texas, Maryland, Delaware, New Jersey, Illinois, Michigan, Pennsylvania and DC).
 - Otherwise, have a “sleeved transaction” with third-party intermediary

Buy the Electricity—Virtual PPAs

- Virtual PPAs
 - No direct retail access
 - “Additionality”: results in construction of new facility and additional renewable energy into grid
- Contract Structures
 - Contract for differences
 - Fixed for floating swap
 - “Collared” transaction