Are you capturing the potential in asset repowering?
Understand the 80/20 rule

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Overview of opportunities for repowering assets
Opportunity

• Owners of wind energy facilities have the opportunity to repower wind farms that are past or approaching the end of their 10-year production tax credit (“PTC”) period

• Repowering involves replacing components of wind turbine generators with new technology resulting in increased output and efficiencies.
  − Complete vs. partial repowers

• Facilities are considered placed in service anew, restarting the 10-year PTC period if the cost of the new property is 80% or more of the sum of the cost of the new property and the fair market value of the used property ("80-20 Rule")
Background and benefit

PTC

• Enacted in 1992, the PTC is an inflation-adjusted per-kilowatt-hour credit for electricity generation

• Applying the inflation-adjustment factor for the 2017 calendar year, the PTC amount is as follows:
  – $0.024/kWh for wind, closed-loop biomass, geothermal energy resources, and solar systems that have not claimed the Investment Tax Credit
  – $0.012/kWh for open-loop biomass, landfill gas, municipal solid waste, qualified hydroelectric, and marine and hydrokinetic energy resources

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  – $0.024/kWh for wind, closed-loop biomass, geothermal energy resources, and solar systems that have not claimed the Investment Tax Credit
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• The exact amount of the PTC for calendar 2019 and future tax years will depend on the inflation-adjustment factor (and rounding) used by the IRS in the respective tax years
Background and benefit

Tax Extender Acts

• On December 18, 2015, President Obama signed into law the Protecting Americans from Tax Hikes ("PATH") Act of 2015 and the Consolidated Appropriations Act of 2015 (together the “Tax Extenders”)
• The Tax Extenders extended the termination dates for the wind PTC.
  - Construction begun before 01/01/17 – 100%
  - Construction begun in calendar 2017 – 80%
  - Construction begun in calendar 2018 – 60%
  - Construction begun in calendar 2019 – 40%
• The Bipartisan Budget Act of 2018, enacted in February 2018, further extended the termination dates for most other types of facilities eligible for PTCs (i.e., biomass, trash, geothermal, hydro) such that construction of these facilities must begin generally before January 1, 2018
Wind Project Repowering – 80/20 Rule

• Facilities are considered placed in service anew, restarting the 10-year PTC period if:
  - \[
  \frac{\text{the cost of the new property}}{\text{the cost of the new property + FMV of the used property}} > \text{or} = 80\%
  \]
  - \[
  \frac{\text{FMV of the used property}}{\text{the cost of the new property + FMV of the used property}} < 20\%
  \]

• Each wind turbine generator with its tower and supporting pad is a separate qualified facility for purposes of IRC section 45 (d)(1), based on IRS guidance including Rev. Rul. 94-31

• Issued in December 2016, IRS Notice 2017-04 clarified that for purposes of repowering and the 80/20 rule, the cost of new property includes all costs properly included in the depreciable basis of the new property

• Identify expenditures allocable to each new qualified facility inclusive of all allocable costs to be capitalized under IRC sections 263A and 263(a)

• Use proper method and elections for purposes of accounting for improvements/additions and for dispositions and removal costs

• **Determining FMV of the used property is critical.**
Repowering case study
Repowering case study

Wind Developer is considering repowering a wind project originally placed in service in 2007 with 100 wind turbine generators (“WTGs”)

• 10-year production tax credit (“PTC”) period has just expired
• Wind Developer purchases new equipment for each WTG including a larger rotor and new controller
  – Additional costs are incurred to remove the existing rotor and controller for each WTG
  – The remainder of each WTG (pad, tower, nacelle, etc.) and balance of plant equipment (transformer, etc.) will be retained
  – The repowering project will result in increased electricity production
• Cost of the new components including installation is $50 million
  – Wind Developer paid $7 million for and took delivery of some of the rotors and controllers in December of 2016
Repowering case study

• What is the “facility” under IRC section 45(d)(1) for purposes of the PTC and 80/20 Test?
  – Rev. Rul. 94-31; Notice 2016-31; Notice 2017-04
  – Balance of plant / shared property?
  – Pad-mounted transformers?

• What is the “cost of new property” for calculating the 80/20 Test?
  – History of 80/20 Test; Notice 2017-04
  – 263A capitalized costs
    ◦ Direct and indirect costs
  – 263(a) capitalized costs
    ◦ Improvement, betterment, restoration
    ◦ Removal and disposal costs
Repowering case study

• How is the value of “used property” determined for calculating the 80/20 Test?
  – Impact of valuation methodology on above fact pattern
    ◦ Cost approach
    ◦ Income approach
    ◦ Market approach
  – CCA 200347024
  – Marketplace / IRS scrutiny

• How is the Begun Construction Requirement satisfied when using the 5% Safe Harbor?
  – Single project election vs. each facility
  – Total cost of the facility
  – Physical Work Test
Potential tax issues related to repowering assets
Potential tax issues

• How to value the used property
• Identifying expenditures allocable to each new qualified facility inclusive of all allocable costs to be capitalized under IRC sections 263A and 263(a)
• Method of accounting and elections for purposes of accounting for improvements/additions and for dispositions and removal costs
Valuation considerations for 80/20 rule for repowering assets
Valuation considerations for 80/20 rule for repowering assets

• The income approach is used to estimate the wind farm value related to cash flows, contracts, and the spot market
• The cost approach is used to:
  − Estimate the replacement cost new (“RCN”) less depreciation of all the assets of the wind farm (WTGs, roads, collection system, etc.), giving special consideration to obsolescence (physical, functional, and economic)
  − Cost approach of the wind farm and qualified facilities should represent the existing plant and wind turbine generator technology
• Estimate the Fair Market Value (“FMV”) of the used property of each qualified facility to be included in the 80/20 test calculation
• Calculate the ratio of the used property FMV to the total facility FMV (sum of used property FMV and new qualified facilities) to show that it doesn’t exceed 20%
Other considerations
Other considerations

• Assumptions used in the repowering analysis should be consistent with other parts of the business
• Consider using a specialist to assist with the valuation analysis
• Evaluate what the unit of account is for the old components being replaced
• Identify appropriate internal controls over the repowering analysis including information used in the analysis/provided to specialists