MARSHALL STEVENS

FACILITY REPOWERING

The Internal Revenue Service's 80/20 Rule (aka "80/20 Test" or "80/20 Analysis") has been utilized to promote economic revitalization and growth since the late 1960's by affording tax incentives to asset owners after the original commercial operation date.

The repowering of renewable energy projects has been popular the past several years in order to take advantage of federal tax incentives (ITC and PTC) while increasing the effective generation of electricity. Recently, we have experienced an increase in engagements to provide these tax valuation opinions for retired conventional energy generation facilities being repowered in order to provide reliable power to, in most cases, data centers.

While Marshall & Stevens has performed repowering analyses of chemical plants, coal, fuel cell, gas fire, geothermal, and solar energy generation facilities, this article addresses valuation analytics associated with the repowering of wind energy generation facilities.

Introduction

Sponsors seeking improved economic performance for their wind farm investments typically pursue technological and capacity upgrades accompanied by new tax incentives for their "reborn" project. Simply put, at least 80% of each wind Facility, defined below, must be replaced to meet the 80/20 Rule and therefore qualify for federal tax credits.

The 80/20 Test

To determine whether a wind farm may be considered "placed in-service" as new, the Fair Market Value ("FMV") of the Retained Components is compared to the total Value which is the FMV of the Retained Components plus the cost to repower.

- The "20" side of the Test considers the FMV of the components of each Facility that will remain in place after the repowering (the "Retained Components"). The FMV of these Retained Components are measured as of a current date for the purposes of the 80/20 Rule.
- The "80" side of the Test considers the cost of the reproduction/replacement cost new ("RCN") of each Facility (the "New Assets"). All depreciable costs of the New Assets are considered for the purposes of the 80/20 Test.

IRS Guidance

Revenue Ruling 94-31 is the primary source of IRS guidance for wind repowering. This guidance has been updated with Notice 2016-31 and Notice 2017-04.

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Revenue Ruling 94-31 defines "individual wind turbines and functioning components, together with their respective towers and supporting pads" as the "Facility". IRS Notice 2016-31 amplifies Revenue Ruling 94-31, by stating, "[a] facility may qualify as originally placed in service even though it contains some used property, provided the FMV of the used property is not more than 20 percent of the facility's total value (the cost of the new property plus the value of the used property)."

The Valuation of Remaining Assets

A typical wind farm consists of multiple Facilities, with assets such as turbine generators, blades, and supporting components, towers, and foundations / supporting pads. Any Facility component may be replaced and tested for the 80/20 Analysis.

Costs outside of each Facility, such as balance of plant assets, are not considered applicable for the 80/20 Test.

In most instances, Facilities and their respective assets do not independently generate income (Income Approach) or transact separately (Market Approach),

thus, the Cost Approach to valuing the assets of each Facility is the most appropriate appraisal methodology. The assets remaining in place and in use by each Facility (the "Retained Components") are valued on a component level, or a bottom-up approach, via the Cost Approach, as part of the 80/20 Test.

The Cost Approach considers the reproduction/replacement cost new ("RCN") for every asset in each Facility. A depreciation factor is applied to reach a depreciated replacement cost ("RCNLD"). Deductions are then taken, as applicable, for (i) functional / technical and (ii) economic obsolescence.

- Physical depreciation is applied based on the concluded remaining economic normal life ("RNUL") of the Retained Components as they reside in the existing project. This is typically done by applying an age life factor which considers the salvage value.

- Economic obsolescence associated with the Remaining Assets is measured via a discounted cash flow analysis of the subject Project as a whole, as of a current date, assuming no repowering. As previously mentioned, the Remaining Assets do not have discrete income streams and do not lend themselves to discrete discounted cash flow valuation. The aggregate Project economic obsolescence factor is then applied to the RCNLD of all Project components in order to then arrive at a current FMV opinion for the Retained Components.

- Any potential functional obsolescence due to performance that may or may not be present is considered captured by the economic obsolescence measurement.

Once the value of the Retained Components is determined for each individual Facility, the concluded value of the Retained Components is compared to the total value to conclude whether the Facility is eligible to be considered originally placed in service under the 80/20 Rule.

The 80/20 Rule can be mathematically applied as follows:

- The FMV of Retained Components must be less than or equal to 20% of the sum of the FMV of the Retained Components plus the Cost of New Assets.

OR

- The Cost of New Assets must be greater than or equal to 80% of the sum of the FMV of the Retained Components plus the Cost of New Assets.

One of the most common misconceptions of the 80/20 Rule is that the FMV of the Retained Components is the same as their respective book (depreciated) value. This is not correct. Experienced machinery & equipment valuation professionals, like we have at Marshall & Stevens, can explain the difference, and determine the most supportive value for the 80/20 filing, especially if the analysis is ever questioned by the IRS.

It has been our experience that sponsors and investors want an 80/20 Analysis that leaves margin for "interpretation" by the IRS, with results for the 80/20 Test in the area of 85/15 or better.

Conclusion

The execution of repowering project analyses by Marshall & Stevens is approached on a highly client specific and consultative basis. The repowering model is assumption-driven, and many scenarios may need to be examined to quantify various sensitivities to multiple potential outcomes. We maintain a high degree of direct interaction with our client and their respective financial, tax, and legal teams so that the most supportable 80/20 Rule positions are taken and documented as the basis for our conclusions.

EXPERTISE IN ACTION

Marshall & Stevens is a leading provider of valuation consulting, transaction advisory, and litigation support services. For over 90 years, our specialists have helped companies, investors, and advisors navigate complex financial and legal matters with confidence.

From the boardroom to the courtroom, Marshall & Stevens delivers clarity, independence, and results.

Contact us today and let us put our expertise to work for you.

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