

by Nick Erickson, VP of Portfolio Management

Most, if not all, sustainable energy infrastructure projects are conceived with the best of intentions. The environment benefits through the production of cleaner and more renewable energy. The consumer consumes the cleaner energy at lower costs. The municipality constructing the project benefits through a more diversified, sustainable source of energy and an increase in tax receipts. And the community benefits through an increase in jobs, income, and better community programs funded through the increase in tax revenue. While the list of intended beneficiaries is long, even the best laid plans can go awry and have far reaching unintended and unexpected adverse impacts.

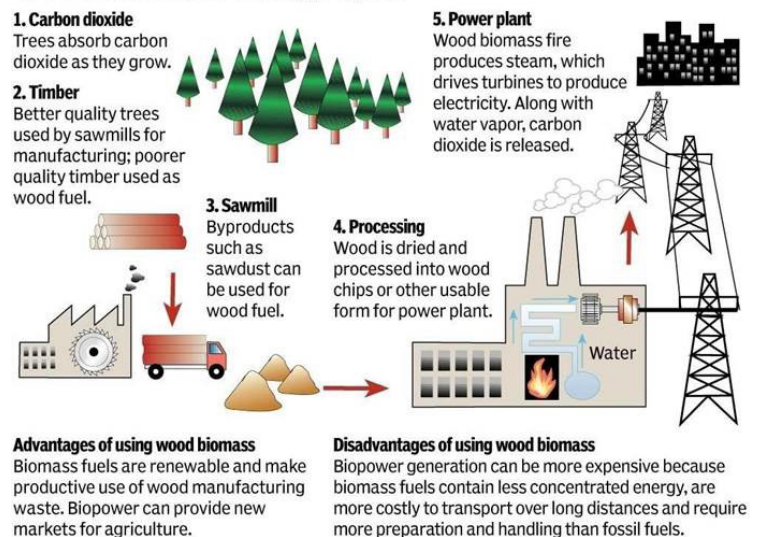
The Good

In 2008, with natural gas prices at all-time highs, the Austin City Council approved an agreement with Southern Company that would lead to the construction of a biomass power plant and a 20-year, \$2.3 billion Power Purchase Agreement (PPA) to buy annually 100 megawatts of the energy generated from the 115-megawatt plant. The biomass plant, which uses wood chips to generate the electricity, was constructed near Nacogdoches, in East Texas between Dallas and Houston. The plant commenced operation in 2012. The agreement would provide renewable energy to help meet newly established goals, diversify Austin Energy's resource portfolio, and more importantly, mitigate rising energy prices.

It's important to note that at the time, mitigating rising energy prices was top of mind. Natural gas prices were at an all-time high and were projected to increase further due to supply concerns and the possibility of a cap on carbon emissions through the form of carbon taxes. In addition to the energy benefits to the City of Austin, the County of Nacogdoches, and subsequently the Cushing Independent School District (ISD), were set to receive annual property tax revenue from what would become the single most valuable piece of property in the area.

The project would also create about 25 jobs in what is typically considered a high poverty region. Under the presumption that future property tax receipts from the plant would pay off debt, Cushing School District issued \$17.75 million in municipal bonds to fund much-needed renovations and updates to what is a high poverty school district. (Cushing ISD's percent of school-age children living in poverty is 28%; the national average is 17%.)

Wood biomass energy cycle



Sources: U.K. Forestry Commission, U.S. Department of Energy

The Bad

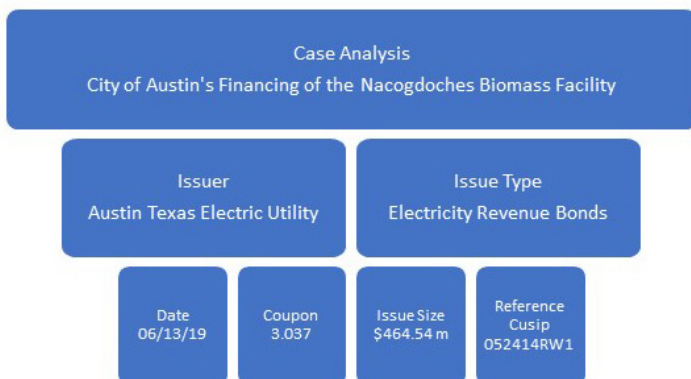
The problem was that those carbon taxes never materialized and natural gas prices plummeted, flooding the market with cheap electricity. This put the City of Austin in a financial bind, as it was significantly cheaper for the city to purchase electricity from the general market as opposed to the biomass plant, except for when market prices peaked during the hot summer months. Per the terms of their PPA with Southern Company, the City of Austin was obligated to continue paying for operations at the biomass plant, even though the power plant was not generating any electricity most of the time. This arrangement continued until early 2019, when the financial landscape of the deal shifted.

In April 2019, the City of Austin agreed to purchase the biomass plant from Southern Company for \$460 million dollars, thus terminating their 20-year PPA. The good news was that the purchase enabled the City of Austin to recoup \$275 million dollars in savings over what would have been the remainder of the 20-year agreement. In June 2019, to finance the purchase, the City of Austin, through the Austin Texas Electric Utility System, issued \$464 million in taxable municipal bonds.



Nacogdoches Generating Facility; Source: Austin American-Statesman

Within the offering statement, the plan of financing was listed as “The Bonds are being issued to finance improvements and extensions to the Electric Utility System. See “DESCRIPTION OF PHYSICAL PROPERTY – Nacogdoches Biomass Facility” in this document...” with the only real benefit of the acquisition being solely financial, “exchanging an escalating capacity payment (funded as an operating expense) for a lower, fixed debt service payment, eliminating the significant profit component of future capacity payments to Southern Power Company and capturing operating efficiencies and cost reductions as the facility owner”.



From an environmentally sustainable investment perspective, a municipal bond issue that would enable the purchase of a sustainable biomass power generation facility seems like a solid choice. But a full due diligence analysis reveals this to be an investment in a biomass facility that is dormant (except for a couple times in the summer) and will likely remain dormant as there are no expectations of natural gas prices rising in the near future.

In order to construct truly sustainable municipal portfolios, it's imperative to understand the entire story of an investment and its purpose. While the use of proceeds can tell you the “what” of an investment, at Sage we feel it is just as important to understand the “why.” In this case, the what, a biomass energy production facility, would pass muster from a sustainable project perspective, but the why, solely to eliminate ongoing costs to the municipality of a dormant facility, would fall outside of what we believe is the true intent of a sustainable investment and subsequently, a truly sustainable portfolio.

The Ugly

We've pointed to the fact that the sustainable environmental impact of the biomass plant isn't really going to come to fruition. But what about the beneficial impacts on the underlying community that supports the plant? We mentioned previously that Nacogdoches County and Cushing ISD are making much-needed infrastructure improvements using the proceeds from collected property taxes. And the community has 25 jobs providing a much-needed source of income. Pump those brakes, because this is where it potentially gets a bit ugly.

Soon, Austin Energy likely will seek to transition the power plant from taxable to tax-exempt status, effectively eliminating \$328 million in taxable property, or 10% of the total property tax receipts in the area . This amounts to a 25% cut to the school district's total budget nearly half of the budget for the emergency services district (volunteer fire service) , and 4% of Nacogdoches County's budget . This loss of revenue would likely have a severe impact on the services the county can provide, and on the ability of the school district to effectively fund the school's annual expenses, as well as continue to service the debt they issued back at the inception of the PPA.

Last, but not least, while Austin Energy has committed to keeping the plant operational for at least the next year, they will continue to evaluate the ongoing viability

of keeping the plant in operational capacity, or whether to decommission the plant, thus eliminating the majority of the current jobs at the plant. If Austin Energy decommissions the plant, it would be just one more blow to Nacogdoches County and Cushing ISD.

When choosing sustainable investments, reading the labels is just the start. As an investor in sustainable projects, it is imperative to not only dig in and understand what the proceeds are intended for, but also what the project is intended to do, and who and what might be impacted by the project in either a positive or negative way.

Source List:

U.S. Census Data

<https://bit.ly/2mcUQp8>

<https://bit.ly/2kHYTtk>

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