GreenChoice Repurposing Proposal

RECOMMENDATION

The Austin Resource Management Commission requests the Austin City Council repurpose Austin Energy revenues collected in the GreenChoice program to fund research, development, and commercial projects that advance dispatchable renewable energy and energy storage.

BACKGROUND

Austin Energy has offered its voluntary GreenChoice energy charge since 2001. It allows any customer to (virtually) purchase 100% renewable energy by replacing the fuel charge on the monthly bill, commonly known as the Power Supply Adjustment. (PSA), with an intentional rider to collect the cost of renewable energy.

In 2022, there were almost 28,000 Residential and Commercial Austin Energy customers (about 5% of total customers) that purchased a total of about 984 million kwh (about 7% of the utility's total consumption).

The program is structured so that it charges 0.75¢ more than the standard fuel charge. Revenues in excess of the standard PSA for this program amount to an estimated $7.4 million annually.

HISTORICAL CONTEXT

When GreenChoice began in 2001, less than 1% of ERCOT's electricity was provided by wind power. In 2022, 32% came from wind power and photovoltaic solar energy.

This special rider allowed Austin Energy to buy more renewable energy than it otherwise would have. The effort was amazingly popular both locally and nationally, often winning awards and acknowledgement.

However, the program has largely achieved its original goal. Austin Energy's percentage of renewable energy from wind, solar, and biomass rose from virtually nothing in 2001 to 50% of supply in 2022. Moreover, the utility's aggressive climate goals have it reaching 65% renewable energy by 2027 and about 80% by 2035.

The next challenge for renewable energy is not the purchase of low-cost wind and solar contracts. It is dispatchability, where these weather-dependent intermittent sources of renewable power can be accessed at whatever time the grid requires them. In Texas, this generally implies energy storage systems, though in other geographies, geothermal and hydropower can sometimes be used for dispatchable renewable energy.

SUSTAINABILITY CONSIDERATIONS

The ultimate goal of this proposal is to allow increasing percentages of renewable energy to be gracefully and pragmatically integrated into the ERCOT grid. Virtual power will not keep the lights on.

We need to change from a grid that is 32% renewable to a grid that is 95%+ renewable.

Changing GreenChoice to a new and more innovative model will allow Austin Energy to help both its own customers and set an example for other utilities and cities throughout the country.

FINANCIAL CONSIDERATIONS FOR NON-SUBSCIBERS

The annual GreenChoice expenditures have become a de facto subsidy for the fuel charge. If the charge was repurposed, and a profit was distributed to all ratepayers, the worst-case impact would be a 43¢/month increase on the average Residential bill.

FINANCIAL OPERATION

The new program would focus on existing companies that create dispatchable electricity from energy storage or renewable energy for sale to electric utility customers. This would include, but not be limited to heat storage, electric storage from lithium and zinc batteries, electric storage using flow batteries, new geothermal energy drilling techniques, and Concentrating Solar Power. This could include both behind-the-meter as well as wholesale power.

The best model would be a leveraged partnership. This model would pool funds from disparate sources (other utilities, federal and state grants, local and state governments, foundations, and private investors) to purchase technologies that actually supplied energy. These projects might be bid out, with the winner also required to invest some amount of money to the effort. Risk would be diversified by these multiple funders.

Austin Energy should maintain at least a 20% investment, and the technology company or third-party owner of the technology winning a competitive bid should also maintain at least a 20% investment.

Under certain successful scenarios, these projects might actually make money and lower rates for either GreenChoice subscribers or the customer base as a whole. (The first instance would be considered something similar to a stock dividend.)

For example, a storage arbitrage system might buy surplus renewable energy or inexpensive off-peak night time energy and then sell it higher during summer and winter peak demand.

The program may decide to make investments by category (e.g., lithium batteries, zinc batteries, flow batteries, thermal batteries, geothermal power). Best bid (not lowest bid) will determine the winner.

PUBLIC/INDUSTRY OUTREACH

• Polling the Concept – A poll of program subscribers and the general public should be undertaken to determine if there is support for repurposing GreenChoice, and to learn the reasons the public might want to support this new program.

• Listening to Public and Experts – The Resource Management Commission will solicit public input, possibly scheduled as a public hearing, will be taken from the public and industry experts as the preferred technologies that will be funded and promoted by this program.

GOVERNANCE

Financial and technical accountability will primarily be the function of Austin Energy. Though the best administrative placement should ultimately be left to the utility, one possible manager would be the utility's Technology and Data division.

Austin City Council will be given an annual written report and oral presentation on the function and progress of this program. Council's approval for the next year of the program's directions should be taken at that time. The Electric Utility Commission and Resource Management Commission will also receive this written report and oral presentation, and Commissioner's suggestions should be taken at that time.

The projects funded by this program may require an academic partner that can provide technical and economic evaluations to measure how well its investments work. Such expertise might be available under contract from the University of Texas.

SOCIAL EQUITY AND INCLUSIVITY CONSIDERATIONS:

While this idea is largely directed at increasing renewable energy supplies for all customers (in front of the meter), there might be a way to locate some of the research in underprivileged areas of the city. If, for example, an energy storage unit for buildings is selected as a project, it might be located in libraries, recreation centers, and health facilities that primarily serve low-income citizens. (One of Austin's first city buildings to mount solar cells on its roof was the Carver Library in East Austin.)

CITY COUNCIL GOALS:

As previously mentioned, Austin Energy's climate goals, ensconced in its *Resource, Generation and Climate Protection Plan to 2030* that was approved by City Council in 2021, reference the imperative for clean energy. It calls for 65% renewable energy supply by 2027 and 82% by 2035.

While these goals can be met virtually, any utility would be hard pressed to reach these higher percentages of renewable energy in the real world without dispatchable power.

The Austin Energy Plan specifically acknowledged this concern when it stated:

Study the technical and economic feasibility of investing in emerging technologies, including ***dispatchable renewable energy****, distribution-level energy storage, transmission-level storage as a non-wire alternative to transmission facilities, aggregated demand response, and Vehicle-to -Grid.* (Emphasis added.)

Reducing energy use and renewable energy use are also ensconced in the Austin Strategic Plan 2023 in the HEALTH & Environment section, Strategy 12.

Invest in a variety of energy, water, and air quality programs and initiatives that emphasize conservation and environmental protection, and are aligned with our long-term environmental policy goals (e.g. Austin Community Climate Plan, Zero Waste Master Plan).