

Risk Assessment of Florida Power and Light and NextEra Energy Clean Energy Transition Plans

Applied Economics Clinic
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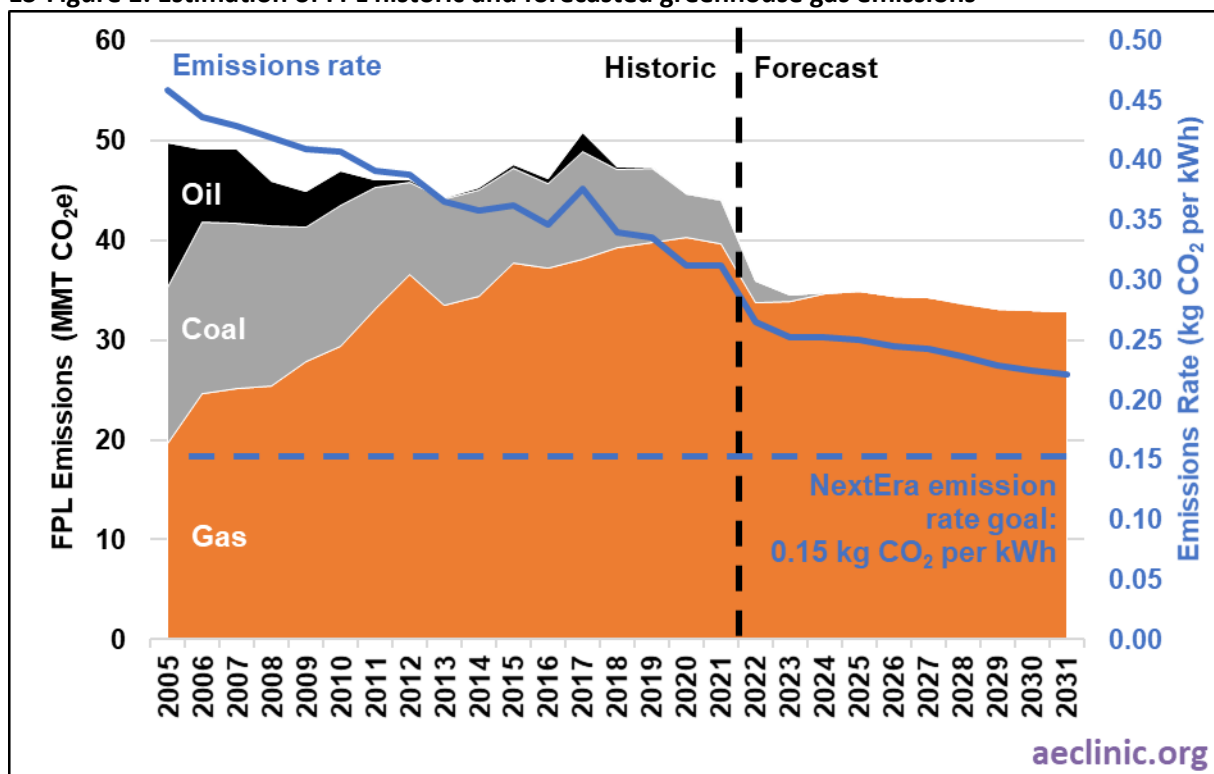
Executive Summary

The clean energy transition is an opportunity for utilities to take advantage of recent technological advancements in grid modernization and the decline in renewable energy costs. For utilities that are apprehensive about moving away from fossil fuels, however, the prospect of a U.S.-wide transformation of the energy sector taking place without them poses a major risk. This Applied Economics Clinic report makes recommendations for Florida Power and Light (FPL) that would assist the utility in embracing the clean energy transition and in doing so reducing risks to ratepayers and its parent company, NextEra Energy’s shareholders.

Utilities across the United States are taking decisive steps towards a clean energy transition. FPL—and NextEra Energy—portray themselves as part of this movement. FPL’s transition plans, however, show a continued reliance on fossil fuels, undermining NextEra Energy’s decarbonization goals.

Utilities across the United States are pursuing net-zero emissions targets while NextEra, the only large utility parent company that lacks an absolute carbon reduction goal, aims to reduce carbon intensity by 67 percent of 2005 levels by 2025. Moreover, FPL’s plans for the future are not aligned with NextEra’s emission rate reduction target; FPL plans for its emission rate to fall 0.46 to 0.22 kg of carbon dioxide (CO₂) per kilowatt-hour (kWh) by 2031, far short of the reductions needed to match the corporate goal (0.15 kg CO₂ per kWh, see ES-Figure 1).

ES-Figure 1. Estimation of FPL historic and forecasted greenhouse gas emissions





FPL's plans fall short, in part, because its strategy centers on an increase in renewable capacity without a corresponding phase out of natural gas resources. FPL forecasts do not comport with the U.S. Energy Information Administration (EIA) 2022 Annual Energy Outlook projections for future electric demand. Overestimation of customer demand results in over-procurement of generation capacity, which raises bills for ratepayers. At the same time, FPL's scanty energy efficiency compared to competitors' offerings deprive its customers of bill savings while unnecessarily inflating Florida's greenhouse gas emissions. NextEra's underwhelming emission reduction targets and FPL's continued reliance on natural gas puts investors at risk of:

- failing to meet their own climate commitments,
- volatile and uncertain natural gas prices,
- public opposition to new fossil fuel infrastructure,
- regulatory actions that limit fossil fuel generation,
- competition from renewable energy and battery storage technology, and
- over-procurement of capacity.

Florida's lack of an energy planning process across its utilities and its failure to require approval of utility plans limits opportunities for achieving best, least-cost energy investments in Florida. While FPL's 2022 planning documents consider multiple scenarios related to winter electric demand forecasts and tax credits, they continue to fail to include natural gas prices and new federal regulation; lack of foresight regarding these important uncertainties could prove costly to investors and customers.

Based on our assessment of FPL/NextEra's transition plans and a review of electric utility climate plans, AEC offers seven recommendations for a new transition plan:

1. Coordinate NextEra and FPL transition plans

Comparison of current planning documents from NextEra and FPL reveals a distinct lack of coordination—FPL, which contributes over 80 percent of NextEra's operating revenues, only plans to reduce its share of capacity fired by fossil fuels by 21 percentage points and its emissions by 45 percent by 2025 despite NextEra's plans to reduce its emissions rate by 67 percent by 2025.

2. Establish short-, medium-, and long-term emission reduction targets, including a net zero target

AEC recommends that FPL establish short-, medium-, and long-term emission reduction targets that align their transition plan with the Paris Climate Agreement—which aims to reduce greenhouse gas emissions 50 percent by 2030 and limit global temperature rise to below 2 degrees Celsius—and its parent company's climate goals. This includes establishing a net zero emissions target for 2050 or earlier.

3. Ramp up demand-side management efforts

AEC recommends that FPL accelerate its demand-side efforts to increase energy efficiency savings from 0.4 percent of sales to a minimum of 1 percent of sales, the U.S. national average.



4. Invest in energy storage technologies

AEC recommends that FPL continue to invest in energy storage technologies to improve and maintain system reliability and to work together with renewable and distributed energy (i.e., solar) for a zero-emission grid.

5. Modernize the electric grid and increase renewable energy capacity

Grid modernization strategies followed by utilities in several states include distributed generation, smart meters, microgrids, and two-way energy flow. AEC recommends that FPL invest more in modernizing its electric grid to improve overall reliability, flexibility, and sustainability of the electric system.

6. Consider multiple scenarios in future planning and reduce planning time horizon

AEC recommends that FPL report the results of several scenarios and portfolios in its planning reports.

7. Increase stakeholder and community engagement and continue to align plan with TCFD

recommendations AEC recommends that NextEra: embrace transparency in publicly reporting their progress towards their climate goals; continue to align its reporting with the Task Force on Climate-Related Financial Disclosure's recommendations for governance, strategy, risk management, and metrics and targets; adopt and add to the disclosure metrics and action milestones proposed in Ceres' 2030 Roadmap; and conduct an assessment of the potential equity implications of their transition plan.