

**Austin Energy Staff Comments on the Draft Report of the
Austin Generation Resource Planning Task Force
11-2-09**

Generation resource planning is an exercise in balancing competing objectives amid constraints. Austin Energy's (AE) mission is "to deliver clean, affordable, reliable energy and excellent customer service." The objectives of AE's mission statement illustrate the components that must be kept in balance:

Clean: in this context, clean represents the objectives of the Austin Climate Protection Plan, in particular, to "establish a CO₂ cap and reduction plan for all utility emissions."

Affordable: within the generation plan, AE must assure that the cost of electric service remains affordable for all classes of customers for the foreseeable future and maintains AE's competitive position.

Reliable: in generation planning, reliability requires maintaining a balanced portfolio of resources available to supply continuous power to AE's customers.

Excellent Customer Service: a key component of providing excellent customer service is disseminating widely information about generation resource choices and consequences, as well as actively soliciting input from all customer segments.

In addition to the need to strike a balance among these sometimes competing objectives, AE's staff and financial resources are not limitless. Practical staffing constraints may limit AE's ability to implement additional programs and to conduct studies and prepare reports. Financial constraints may limit investments, and budgetary constraints may drive new approaches to provision of services (as seen recently in the solar rebate program).

A key question of balance in the refinement of the generation resource plan is the risk tolerance of our community. Each of the generation resource options involves a unique basket of risks. Those risks may include: the future price path of fuels; the framework of anticipated environmental regulations; the market price of electricity; technological innovations as yet unknown; customer readiness to adopt innovations; and the future price path of renewables technologies.

The discussions of the Austin Generation Resource Planning Task Force (Task Force) and at many of the public meetings hosted and/or facilitated by AE have illustrated the dependencies and tradeoffs among these objectives. For example, energy efficiency measures may substitute for new generation. However, the generation resource plan must recognize the differences in the two approaches—ability to satisfy peak demand, consequences of load shifting, and flexibility of deployment. There are also tradeoffs involved in the expansion of renewables in place of traditional fossil fueled resources. Of the generation options, renewables best satisfy the objective to cap and reduce carbon dioxide (CO₂) emissions. However, the future costs of renewable resources are

uncertain, and renewables' variability imposes additional planning and cost challenges. Austin Energy's Resource and Climate Protection Plan contains components designed to balance these competing objectives, with a finite collection of staff and financial resources, in the face of a variety of market and technological risks. The individual elements of the plan work in tandem to strike the balance of a utility in the forefront of environmental leadership, but a utility nonetheless. In reviewing recommended changes to the plan, AE will be cognizant of alterations in that balance.

In reviewing the draft recommendations of the Task Force, AE staff has several overarching comments, followed below by comments on individual sections of the Task Force draft report.

Maintaining Flexibility

Generation resource planning must not be static. As circumstances change, AE must maintain the flexibility to modify elements of the generation resource plan to respond to new regulations, technologies, and changes in costs. The generation resource plan that is eventually adopted by the Austin City Council (Council) will guide AE for future investments, but is not intended to lock AE into the type, size, and timing of specific investments as these individual elements may change to reflect circumstances at that time. Regardless of the circumstances, AE will evaluate each individual generation resource investment before moving forward, and will advise and seek necessary approvals from Council before undertaking any substantial investment.

Reporting/Assessment Resource Limitations

In the development of this generation plan, AE has been engaged for close to two years. Austin Energy committed dozens of staff resources and hundreds of thousands of dollars in consulting fees to this effort. As AE moves forward in the next phase of this plan, AE and the community should be mindful of staff and financial resources. On an annual basis, AE updates the strategic plan and the load forecast. Those two studies alone require a significant staff resource commitment. In the two year dialogue with the community and the Task Force, AE has committed to a variety of studies and efforts in support of the plan. The Task Force has called for additional studies and reports. As noted above, prior to committing to an individual investment, AE will spend significant internal resources planning for and assessing that investment. The attached timeline illustrates the schedule of reports and studies committed to by AE in its Resource and Climate Protection Plan, as well as those recommended by the Task Force.

Practical Limits on Energy Efficiency Targets

The question of the true potential for energy efficiency is more than simply a question of money for efficiency rebates and programs. Austin Energy designs its energy efficiency incentive programs in an economically efficient manner, with cost-effectiveness tests used to ensure a net benefit for each program and for the portfolio as a whole. Austin Energy's energy efficiency portfolio is a blend of programs, each with a different cost

profile that on average beats the cost of avoided generation. Altering the avoided cost calculation will not, in itself, result in more energy efficiency. Customer awareness and willingness to participate in an efficiency program is often a greater hurdle than cost-effectiveness. There are additional major drivers of meeting energy efficiency goals that are beyond the utility's control including federal legislation, state actions, energy code adoption, and corporate objectives. There are also valid concerns about investments in energy efficiency that primarily benefit individual customers over ratepayers as a whole.

Rate Case Perspective

The Task Force draft report calls for AE to determine within the upcoming rate adjustment the extent to which anticipated rate changes for all customer classes are due to the elements of the generation plan. Austin Energy notes that in a rate proceeding, electric rates are generally set on a *retrospective* basis. At the time new rates are set, AE will not have expended significant funds related to the generation plan. Hence, the rate adjustment does not seem relevant to assessing the cost impacts of the plan. The costs of new generation investments would be addressed in subsequent rate proceedings.

Benchmarking Practicalities

Austin Energy shares the objective of the Task Force draft report that AE's rates/bills should be benchmarked against similarly situated entities to provide the Council and the community with information on the value that AE provides the community. Unfortunately—as has been discussed with the Task Force—due to the regulatory and market environment in Texas, AE does not have access to comparable benchmarking data beyond that which is publicly available through the Texas Public Utility Commission (PUC). It is possible that AE could purchase data on rates/bills from a third party provider, but the comparability and cost of such data is unclear without further research and perhaps release of a Request for Proposal.

The remaining comments are presented along the same organization as the Task Force draft report.

1. Increase Conservation and Efficiency

Austin Energy agrees that conservation and energy efficiency can be the most cost-effective method of reducing capital requirements, maintaining affordable electric rates, and reducing greenhouse gas emissions. As is stated in AE's Resource and Climate Protection Plan, AE continues to first target energy efficiency and conservation to meet new load growth as well as reduce existing demand. Austin Energy's proposed plan raises the current goal of 700 megawatts (MW) of cumulative energy savings by 2020 to 800 MW, despite the current economic recession, which adversely affects AE's ability to meet its energy efficiency and conservation projections. The current Council approved 700 MW goal, AE's proposed 800 MW goal, and any goal proposed by the Task Force will be measured cumulatively from a baseline beginning in 2007. In fiscal year 2009,

the amount of energy savings achieved through energy efficiency services was determined to be 49 MW which is 80 percent of the target goal, established prior to the recession, of 62 MW. Slow economic activities in new construction as well as high vacancy rates in multi-family and commercial office were the primary reasons for lower than expected energy savings.

Task Force Recommendation 1.a.—raise the goal for demand side resources to 1,000 MW:

Austin Energy supports this recommendation with the following concerns. Austin Energy will make every effort to achieve the 1,000 MW target recommended by the Task Force to the extent that it can be achieved in a cost-effective manner. If an even more aggressive goal is set by Council, AE will make its best efforts to achieve that goal, and each year AE will conduct an assessment of progress and energy efficiency prospects and report to Council whether the goal appears achievable. Austin Energy’s proposed increase in the energy efficiency target to 800 MW was based on an extrapolation of the existing goal. Austin Energy expects a positive trend for energy efficiency, aided in Austin by improvements in the economy, technologies, building codes, customer awareness, and economic value. Increasing reliance on building codes limits AE’s ability to rely on rebate and other programs more characteristic of immature efficiency programs. Austin Energy does see significant potential as a result of smart grid and storage technology developments, but these benefits are difficult to characterize accurately at this time. Austin Energy has proposed a reevaluation of the technical and economic potential for efficiency in its proposed generation resource plan, and has concerns about the feasibility of satisfying a 300 MW increase over the current Council goal (nearly 40 percent) as suggested by the Task Force.

Task Force Recommendation 1.b.—ECAD ordinance:

Austin Energy supports this recommendation.

Task Force Recommendation 1.c.(i)—zero energy capable housing stock:

Austin Energy supports this recommendation as it supports programs that improve the energy efficiency of existing homes in the residential sector. Austin Energy will continue to design programs targeting this sector.

Task Force Recommendation 1.c.(ii)—pilot program for rental properties:

Austin Energy supports this recommendation with the following concerns. Austin Energy can undertake an effort to measure the benefits of energy efficiency upgrades to owners and tenants of rental property, but based on past experience, AE is skeptical that such an effort will lead to results different from past efforts. The ECAD ordinance requires multi-family housing owners to conduct an energy audit and make those results available to its current and potential tenants. In addition, the ordinance requires energy efficiency improvements for so-called “energy hogs.” Austin Energy believes that these provisions of the ECAD ordinance will be the drivers for future energy efficiency improvements in the rental sector.

Task Force Recommendation 1.c.(iii)—neighborhood-by-neighborhood weatherization:

Austin Energy supports this recommendation with the following concerns. Austin Energy believes that the neighborhood-by-neighborhood approach for weatherization and demand-side management services may offer significant value to AE’s customers. Austin Energy is investigating whether such an approach can be accommodated in AE’s program mix. The current effort at developing a neighborhood-by-neighborhood program would target low-income neighborhoods. The Task Force recommendation to target “the most energy intensive neighborhoods” would instead direct AE’s efforts to more affluent neighborhoods, particularly in West Austin.

Task Force Recommendation 1.c.(iv)—raising the energy efficiency investment level and lifting the individual investment cap:

Austin Energy does not support this recommendation for the following reasons. The long-standing basis of AE’s energy efficiency program design is that the program as a whole—and most of the individual elements of the program—is cost-equivalent or cheaper than the cheapest supply-side generation option. Currently, the cheapest conventional supply-side option for meeting increased demand is investment in natural gas combustion turbines as a cost of \$700 to 800 per kilowatt (kW) of capacity. Austin Energy believes that investing in energy efficiency up until the average cost of energy efficiency investments exceeds the cost of new generation strikes the right balance among AE’s objectives and is a financially sound and not unduly risky approach. If the Task Force requests that AE raise the level established in the cost-equivalency test, AE requests that the Task Force provide additional direction on what tests it finds to be financially sound and not unduly risky.

The current cap of \$200,000 provided by AE to a commercial customer participating in an energy efficiency and conservation program is set by Council to assure that no single large commercial or industrial customer receives inequitably large financial incentives. Austin Energy is willing to consider particular offers that exceed the cap on an individual project basis, but the size of those projects must be reasonable within AE’s programmatic goals. A project that is made cost-effective for one customer through extraordinarily large subsidies, even while meeting a simple cost-effectiveness test, does not necessarily create a benefit to all customers, and, in fact, can raise serious concerns of equity. Eliminating the current cap could also create programmatic budget concerns. Additionally, it should be acknowledged that investment in thermal energy storage (which may constitute the most significantly affected program if the cap were raised or eliminated) can achieve significant peak demand savings, but no energy savings, as demand is being shifted from peak to off-peak hours. Thus, such programs could actually increase greenhouse gas emissions by creating additional demand to operate the Fayette Power Project. The level of investment in wind is likely to play a critical role in the impact of load shifting on greenhouse gas emission levels.

Task Force Recommendation 1.c.(v)—auction for commercial efficiency programs:

Austin Energy supports this recommendation on the condition that an auction approach is followed only for a portion of its commercial efficiency programs. Austin Energy agrees

that energy efficiency and conservation dollars should be spent efficiently, generating maximum energy savings for dollars spent within the context of AE's programmatic objectives.

Task Force Recommendation 1.d.—H.B. 1937 Implementation:

Austin Energy supports this recommendation, which is already underway and is now incorporated in a resolution passed by Council on October 22, 2009 to “study and evaluate the means of implementing a program under HB 1937 to finance the installation of energy efficiency improvements and renewable energy resources by property owners in the City of Austin, in a way that has no cost impact on the City government.”

2. Favor Carbon-Free Generation Over Carbon-Based Resources, Subject to Economic Feasibility

Austin Energy's Resource and Climate Protection Plan is designed to meet the Council goals specified by the Austin Climate Protection Plan (ACPP) and to meet the sometimes competing objectives of AE's mission in a fiscally responsible manner. The resource plan is designed to reduce risks facing the electric utility industry in the areas of carbon regulations and fuel costs changes and in the face of technological uncertainties. Austin Energy has adopted a portfolio-based approach to long-range resource planning. Such an approach allows the utility to evaluate the balance and combined benefits of multiple investments of an evolving portfolio of generation resources. Long-range risks of technologies also need to be considered.

Task Force Recommendation 2.a.—substitute carbon-free assets:

Austin Energy does not support this recommendation for the following reasons. Austin Energy evaluates its generation investment decisions using a portfolio-based approach, considering all generation options, including carbon-free and carbon-emitting sources. The decision on any investment must balance AE's climate protection and other goals, cost and environmental considerations, and risks and uncertainties, among other factors. Timing of generation resource needs is also critical to AE's approach to making investment decisions. Because investment decisions must satisfy a number of different objectives, AE has and will continue to evaluate the costs and benefits of carbon-free generation relative to carbon-emitting resources. It should also be recognized that investment in some carbon-emitting power plants, such as combined-cycle natural gas units, can reduce the utility's overall carbon emissions by substituting more efficient processes for burning natural gas than some of AE's current natural gas units.

Task Force Recommendation 2.b.—300 MW distributed renewable generation goal:

Austin Energy does not support increasing its 200 MW solar goal to a 300 MW distributed renewable generation (DRG) goal. Austin Energy is committed to expanding opportunities for DRG across the AE service territory. Austin Energy supports the Task Force objective of creating a self-sustaining market for DRG, and AE's existing programs contribute to this objective. Distributed renewables lower AE's costs of serving peak load, reduce carbon emissions, and give customers greater control over their electric bills. As cost-effective methods for expanding DRG become available, AE will

take advantage of these opportunities. The ability to expand DRG will require widespread community involvement and investment. Adoption of DRG by customers is largely dependent on the future costs of these technologies and the extent to which the community is willing for AE to subsidize individual investments in DRG. While AE's solar rebate program has proven extremely successful, it is unclear whether solar adoption will continue without significant subsidies. Austin Energy continues to explore new methods and programs for expansion of DRG. Currently, the generation resource plan includes 200 MW of solar generation. Those solar investments are anticipated to include both centralized and distributed solar technologies.

Task Force Recommendation 2.b.(i)—DRG business model approaches;

Task Force Recommendation 2.b.(ii)—DRG project prioritization;

Task Force Recommendation 2.b.(iii)—Distributed solar facilities:

Austin Energy supports these recommendations.

Task Force Recommendation 2.b.(iv)—DRG satisfying AE's solar goals:

Austin Energy supports this recommendation with the following condition. Austin Energy notes that whether AE may take credit for individual DRG installations in satisfaction of AE's solar goals will depend on who holds the Renewable Energy Credits (RECs) or equivalent bundled environmental attributes for each installation. If AE holds the RECs, AE can credit the output of that facility against its goals. Currently, AE's policy is that the utility receives all the RECs from solar installations receiving rebates from AE's program. If instead the RECs are awarded to the building owner, only the building owner can claim credit for the solar installation.

3. Reassess the Plan as New Cost and Environmental Data Become Available

Austin Energy recognizes that reassessment of the Resource and Climate Protection Plan will be a continuous process. The current generation resource planning and public participation process has taken almost two years to date. While AE will regularly update the plan in a manner that is transparent to the public, the extent of public involvement should be appropriate to the task and mindful of AE's available staff and financial resources.

Austin Energy agrees that its rates must be competitive with comparable entities operating in the Electric Reliability Council of Texas (ERCOT) market. Competitive rates are one measure of the value that AE brings to the community. As has been discussed with the Task Force, due to the nature of the deregulated electric market in ERCOT, specific cost benchmarks based on data from entities that are truly comparable with AE may be difficult to identify. Different utilities face different authorities, processes, regulatory requirements, and economic markets that can impact business decisions and electric costs and rates. These differences would need to be considered in any such benchmarking analysis if viable benchmarking data can be identified.

Task Force Recommendation 3.a. —biannual reassessment of the resource plan;

Task Force Recommendation 3.b. —components of public reassessment:

Austin Energy supports these recommendations with the following concerns. To assure that AE's staff and financial resources are allocated appropriately, any reassessments of the Resource and Climate Protection Plan should be reviewed by existing oversight entities, namely the Electric Utility Commission and the Resource Management Commission, and the scope and specifics of that public review should be determined by those entities in coordination with AE.

Task Force Recommendation 3.c.—assess generation plan in 2012 rate proceeding:

Austin Energy does not support this recommendation for the following reasons. The anticipated 2012 rate proceeding will be retrospective, not prospective. In setting new rates, AE will conduct a historical assessment of its revenue requirement based on expenditures in 2011. As few expenditures directly related to the plan will have occurred in 2011, the rate proceeding will generate little useful data to evaluate impacts of the plan. The members of the Task Force should recognize, however, that the rate proceeding will take place in a public forum with many opportunities for public participation.

Task Force Recommendation 3.d.—annual rate comparisons:

Austin Energy does not support this recommendation for the following reasons. Austin Energy does not believe that it has access to valid, comprehensive data that can be used to compare commercial and industrial rates to rates offered by similarly-situated utility companies. Austin Energy tracks its residential rates against rates offered in other large cities in Texas. For commercial and industrial rates, a limited data set available from the PUC can be used to track general trends in rates/costs over time, but the data set is extremely limited, and thus the use of that data is questionable. Establishment of more detailed benchmarks for similarly situated utilities for various customer classes in different locations across the State would only be achievable by collection of customer data from third party vendors. Nevertheless, without detailed assessment of any such third party data, it is unclear whether benchmarking will provide a true apples-to-apples comparison.

Task Force Recommendation 3.e.—Quarterly fuel charge itemization:

Austin Energy does not support this recommendation for the following reasons. Itemization of the components of the fuel charge as listed in the appendix to the Task Force draft report—down to the level of individual power plants and contracts—would require release of information that is confidential under the Competitive Matters Resolution adopted by Council and would involve release of information that AE is contractually required to hold in confidence. Austin Energy can provide a summation of the cost categories of the fuel charge (ex. natural gas, coal, wind, ERCOT). However, AE believes that the timing of the provision of such information should coincide with the current annual cycle used to set the fuel charge.

4. Consider Expanded Natural Gas Facilities

Austin Energy supports this recommendation with the following concerns. Austin Energy watches closely the markets for natural gas and other fuels. In its reassessments

of the generation resource plan, AE will continue to evaluate the appropriate place for natural gas power generation in the resource mix. Currently, AE's natural gas facilities are used when the operation of those units is cost-effective or such generation is necessary to help meet peak demand. As the incremental costs associated with natural gas power generation are fuel costs, expanded use of AE's natural gas facilities will be largely determined by natural gas prices. Due to the volatility of natural gas prices, AE has instituted a fuel hedging program to help manage fuel price risks. The latest information on natural gas prices and future forecasts will be evaluated as AE makes future recommendations on generation investments.

5. Consider Nuclear Power

Austin Energy supports this recommendation with the following concerns. Austin Energy has recognized in its Resource and Climate Protection Plan that it will evaluate nuclear power purchase agreements if offered in the future. However, AE notes that nuclear power is not considered a renewable generation resource and thus does not meet the renewable targets under the ACPP adopted by Council, and thus cannot be counted toward the utility's renewable goals.

6. Reduce Bill Impact on Those Least Able to Pay

Austin Energy recognizes that the impact of resource decisions on the electric bills of low-income customers is of critical importance to the utility and to the community. Austin Energy currently has a number of programs that address low-income customer needs.

Task Force Recommendation 6.a.—raise income criterion for weatherization and related programs:

Task Force Recommendation 6.b.—study of households up to 400 percent of federal poverty guideline:

Austin Energy does not support these recommendations for the following reasons. All AE customers, including low-income customers, are currently eligible for AE's energy efficiency and conservation programs. However, it is often difficult for low-income customers to afford the shared up-front costs for participating in many of these programs. Expanding AE's free weatherization program to the identified customers would substantially increase a rather large backlog that currently exists due to practical staffing and financial constraints. Based on AE's market research, every 50 percent increase in the income criteria for the free weatherization program would result in approximately 15,000 to 20,000 newly eligible customers for that program. Fully 56 percent of the population in AE's service territory would qualify for free weatherization at 400 percent of the federal poverty guideline. As federal funds received through the Recovery Act expire, AE will make every effort to maintain continuity of eligibility requirements for these programs.

Task Force Recommendation 6.c.—expand distributed renewable generation to low- and middle-income households:

Austin Energy supports this recommendation. Austin Energy is currently looking into programs to create affordable opportunities and incentives for low-income households to benefit from DRG. For this customer segment, affordability is the key criterion and may be difficult to overcome without providing grants for installation.

Task Force Recommendation 6.d.—expand energy efficiency programs to rental housing:

Austin Energy supports this recommendation, but recognizes the following concerns. Austin Energy has articulated to the Task Force the greater difficulty in extending energy efficiency and conservation programs to the rental housing market. Austin Energy continues to focus on this section of the housing market, but as noted in AE’s comments to Task Force Recommendation 1, this market offers unique challenges which to date have proven difficult to overcome.

Task Force Recommendation 6.e.—inclusion of low-income customer representatives:

Austin Energy supports this recommendation. Representatives of residential and low-income customers will be included in any future public participation processes related to resource planning and will have a voice in the planning for the 2012 rate proceeding.

7. Ensure Maximum Transparency and Public Participation in Energy Resource Decisions

Over the nearly two years of the public participation process supporting the development of the Resource and Climate Protection Plan, AE has actively pursued public involvement and input. Austin Energy anticipates that future generation resource planning efforts will incorporate a similar opportunity for public involvement.

Task Force Recommendation 7.a.—Commission and Council review of resource decisions:

Austin Energy supports this recommendation with the following concerns. Austin Energy is governed by the City Council and by the Electric Utility and Resource Management Commissions as determined by Council ordinance. In light of its governance processes and oversight, AE currently follows processes for all generation resource investment decisions consistent with the Task Force recommendation—with the one exception of presenting only once to the City Council and the applicable commissions. While AE strives to ensure transparency and public participation with all generation resource decisions, it is possible that in the future AE may be faced with the need to make a decision on a generation investment that would necessitate quicker action than such a process would allow (for example an offer for an attractively priced wind contract resulting from short-term market over-supply). It is AE’s responsibility to bring such opportunities to the attention of the City Manager and the City Council to make the best and most responsible investment decisions to ensure affordable electric bills for its customers.

Task Force Recommendation 7.b.—review of Competitive Matters Resolution:

Austin Energy supports this recommendation as it believes that it is an appropriate time for review of the Competitive Matters Resolution.

8. Assume Leadership Role in the Climate Protection Plan

Austin Energy believes that its Resource and Climate Protection Plan achieves the goals of the ACPP to establish a carbon cap and reduction plan and is more aggressive than any anticipated legislative or regulatory requirements.

Task Force Recommendation 8.a.—establish a CO₂ cap more stringent than federal caps:

Austin Energy supports this recommendation. The Resource and Climate Protection Plan fully meets and exceeds this recommendation. This plan represents AE's recommendation to the Council to implement a carbon cap and reduction plan. In addition, the climate protection plan exceeds any anticipated federal carbon cap. The Waxman-Markey bill passed by the House of Representatives calls for an economy-wide reduction in CO₂ emissions of 17 percent. AE's recommendation exceeds that cap through a resource plan that reduces stack emissions by 20 percent by 2020 from 2005 emission levels. Austin Energy's current assessment of the federal climate debate is that it is unlikely that legislation will be adopted that requires reductions as stringent as those proposed in Waxman-Markey, and if so, AE's recommendation will be well below the federal cap.

Task Force Recommendation 8.b—offset carbon emissions from new generation:

Austin Energy supports this recommendation. Austin Energy's Resource and Climate Protection Plan fully meets the ACPP goal that all future generation be carbon neutral. Austin Energy meets that goal primarily through reductions of stack emissions, but also through energy efficiency, DRG, and if necessary purchase of additional offsets. The only recommended carbon-emitting resource addition in AE's Resource and Climate Protection Plan to 2020 is a 200 MW combined cycle natural gas unit. Austin Energy believes that its plan to build-out a new combined cycle natural gas unit at Sand Hill meets the requirements of the ACPP as it will reduce greenhouse gas emissions by burning natural gas more efficiently than the Decker natural gas facility. It is estimated that this build-out will allow for a cumulative reduction of approximately 1 million metric tons of CO₂ by 2020.

9. Maintain Reliability and Quality of the Austin Energy Transmission and Distribution System

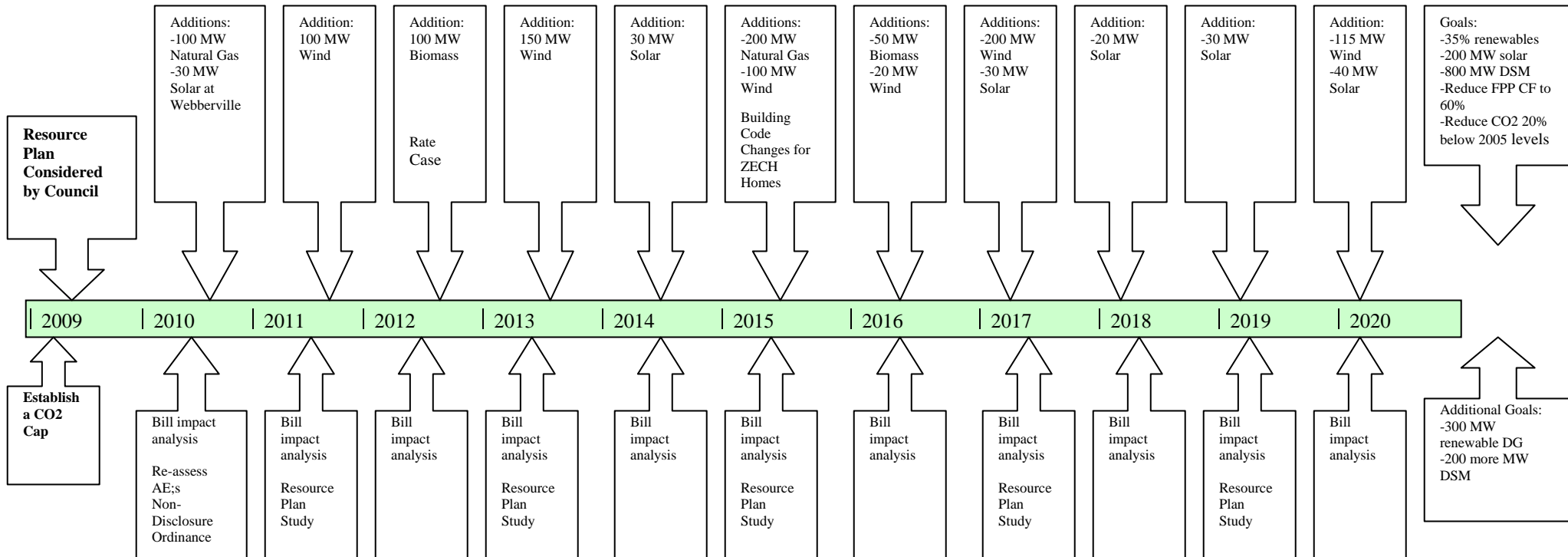
Austin Energy supports this recommendation. Austin Energy has and will continue to monitor and mitigate adverse reliability and power quality outcomes on its distribution network associated with generation resources that are connected at the distribution level. Austin Energy already has several industry accepted performance measures in place that track the reliability of its distribution system including SAIDI (System Interruption Duration Index) and SAIFI (System Average Interruption Frequency Index), which may be used or adapted for this purpose. In addition, AE will continue to monitor the System

Average Transmission Line Performance Index (SATLPI). This measure provides a means to monitor the reliability and power quality of AE's transmission line design and maintenance programs. The data collected to calculate these performance measures include the underlying cause of a disturbance. This information provides AE the intelligence necessary to mitigate future distribution reliability concerns.

If this recommendation is proposed by the Task Force, it is recommended that the Task Force note that system reliability and power quality be tracked and publicly reported as a "rolling, 12 month cumulative index." Additionally, data should include historical data and trends "compared to Austin Energy's established goals."

Austin Energy Resource Planning Potential Events

Note: Events above the timeline are proposed by AE and events below the timeline are proposed by the Task Force.



Goals:
 -35% renewables
 -200 MW solar
 -800 MW DSM
 -Reduce FPP CF to 60%
 -Reduce CO2 20% below 2005 levels

Additional Goals:
 -300 MW renewable DG
 -200 more MW DSM

Studies and Program Development Proposed by Austin Generation Resource Planning Task Force

- Convert existing housing stock to ZECH
- Design and conduct pilot project for DSM for rental property
- Develop neighborhood approach to weatherization and other DSM programs
- Establish auction system for commercial DSM programs
- Design program to add at least 300 MW of renewable DG by 2020
- Expand DSM programs for lower-income customers and expand the minimum income requirements for certain programs

Studies and Program Development Committed to by Austin Energy

- Energy efficiency potential study
- Plan for distribution system efficiency improvements
- Innovate rate design changes, including dynamic pricing
- Combined heat and power potential study
- Plan for local contractor, M/WBE contractor, and veterans opportunities
- Analyze ECAD
- CAES projects and other wind energy deployment and storage strategies
- Solar thermal hot water program
- Solar energy storage strategy
- Plan for development of full on-site solar energy potential in Austin Energy
- Develop portfolio approach to siting, financing and ownership of solar
- Develop incentives and strategies for local solar PV manufacturing capacity
- Study facility biomass options
- Biomass co-firing at FPP study
- Investigate NOx reductions and carbon capture and storage retrofits at FPP
- Investigate geothermal resource acquisition
- Assess non-solar renewable resources in service area

Complementary Strategies

- Energy Storage
- Smart Grid
- Pecan Street Project
- Electric Transportation
- Economic Development