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How does the American Clean Energy and Security Act of 2009 (HR 2454 aka the “Waxman – Markey Bill”) , as approved by the House of Representatives on June 26, 2009 inform Austin Energy’s resource generation planning and the recommendations of the Resource Generation Planning Task Force?

Title I – Clean Energy

Subtitle A – Combined Efficiency and Renewable Electricity Standard

Section 101 – Electric utilities must meet a combined renewable electricity and electricity savings requirement of 6% by 2012 and 20% in 2020. Only one quarter of the 20% requirement may be met through electricity savings (demand side management), although states can petition to be allowed to use energy savings for up to 40% of their renewable requirements. If utility companies fail to submit sufficient renewable energy credits to demonstrate satisfaction of those criteria, they must make a compliance payment equal to 2.5 cents per kilowatt hour. Energy savings credit may only be earned for projects begun after enactment of ACES as law.

Austin’s goals of 30% renewables by 2020 and 700 MW of peak energy demand savings are more aggressive than the proposed mandated goals. However, with renewables representing approximately 6.6% of energy generation in FY 2008 (and expected to increase to 12.6% for 2009) in AE’s current portfolio, AE would be required to make substantial investments in renewables by 2020 even if it had no local goals if Waxman – Markey were to become law. AE’s goals provide insurance against the risk of having to pay the 2.5 cents per kilowatt hour charge.

Subtitle B – Carbon Capture and Sequestration (CCS)

Section 114 -- Carbon Capture and Sequestration Demonstration and Early Deployment Program. Authorizes fossil-based electricity distribution utilities to hold a referendum on the establishment of a Carbon Storage Research Corporation. If approved by entities representing two-thirds of the nation’s fossil fuel-based delivered electricity, the Corporation would be established and would be authorized to collect assessments up to \$1 billion annually to fund large scale demonstration of CCS technologies. Assessments would be equal to \$0.00043 per kwh of coal generated electricity. Based on 2007 AE total energy generation of 11,325,069,000 kwh and assuming 1/3 of that generation is coal, AE’s annual assessment would be \$1,623,259. Natural gas generated electricity would be subject to an assessment of \$0.00022 per kwh.

Reaffirms that any planning on CCS technologies is premature. Any reductions in coal generated electricity will reduce the amount of higher-rate CCS assessments being imposed on AE.

Subtitle C – Clean Transportation

Section 121 – Would require utilities to develop a plan to support electric vehicle infrastructure. The plan must provide for the deployment of charging infrastructure to adequately support use of plug in vehicles.

Law only requires development of a plan and does not specify targets, so presumably AE would develop a plan based on targets or goals established by the City Council. Best to leave this issue until development of plan actually required or are there benefits to community from early consideration?

Subtitle E – Smart Grid Advancement

Section 144 – Smart Grid Demand Reduction Goals.

This will require, at the utility or state level, the adoption of goals to achieve “realistically achievable” reductions in peak demand by 2012 and 2015 through either (a) the use of “smart grid” technologies or improvements in efficiency in transmission wire technologies or (b) megawatts being made contractually available to the utility from a variety of sources, such as (i) dynamic peak management control (the utility has the contractual right to lower demand), (ii) dispatchable distributed generation or stored energy, (iii) distributed solar so long as peak is directly related to solar radiation and accompanying heat.

AE would determine its peak reduction goals 2012 and 2015 and these goals would have to be “realistically” achievable. Deployment options would include: direct reduction of demand through energy efficiency measures, demand response programs, dynamic peak management control, distributed electricity storage, distributed generation reliable under peak conditions, smart appliances under utility control and/or distributed solar thermal capacity. Best to leave this issue until development of plan and goals actually required or are there benefits to community from early consideration?

Subtitle H – Clean Energy Innovation Centers

Establishes a program to support development and commercialization of clean energy technologies through eight regional Clean Energy Innovation Centers (called “Hubs”) selected competitively by the Secretary of Energy. Centers may be awarded to consortiums consisting of research universities, private research entities, industry, and relevant state institutions. Each Center has a unique technology focus to which at least 40% of support would be directed.

Should generation plan recommendations of Task Force take into consideration how to best position Austin to be designated as a Hub? If so, how would Task Force accomplish that goal?

TITLE II – Energy Efficiency

Subtitle A – Building Energy Efficiency Programs

Section 201 – Calls for local building codes to be implemented achieving 30% greater energy efficiency by 2010 and 50% greater energy efficiency by 2014 (residential) and 2015 (commercial), as compared to 2006 IECC Code (residential) and ASHRAE Standard 90.1-2004 (commercial). Each three years afterwards must bring 5% additional reduction in energy use.

AE staff should assess whether current plans prepared for meeting 700 megawatt reduction goals will be in compliance with these federal mandates. If not, should Task Force recommend that AE adopt such targets?

Section 202 – Building Retrofit Program. Authorizes Secretary of Energy to establish a program to encourage retrofitting of existing buildings with financial assistance up to 50% of the costs of retrofits.

Would the availability of such funds allow a more aggressive goal than 700 MW of peak demand reduction?

Section 206 – Energy Efficiency for Data Center Buildings. Amends prior law calling for establishment of voluntary standards for energy efficiency of data center buildings to require that a technology industry organization be designated to implement the standards within two years after the date of the ACES (prior law left implementation date open).

Data Center Buildings and industrial buildings are exempt from the recently passed ECAD ordinance. Should they continue to be? AE staff should assess what impact adoption of the voluntary standards as mandatory within Austin would have on ability to exceed 700 MW reduction goal and associated costs.

Subtitle B – Lighting and Appliance Energy Efficiency Programs

Section 211, Lighting Efficiency Standards: Amends the Energy Policy and Conservation Act to adopt negotiated agreements on technical standards for lighting, including outdoor lighting – street lights, parking lot lights, and parking structure lights.

AE staff should assess whether current plans prepared for meeting 700 megawatt reduction goals will be in compliance with these federal mandates. If not, should Task Force recommend that AE adopt such targets? Can this allow for establishment of new targets for reduction in “Street/Highway”, “Commercial” or “Other Government” consumption?

Section 213, Appliance Efficiency Determinations and Procedures: requiring the adoption of a new television standard; improving standard-setting cost-effectiveness formula; authorizing the Secretary to obtain product-specific information as needed; authorizing state injunctive enforcement of standards violations; changing the role of appliance efficiency in building codes; and

including greenhouse gas emissions, smart grid capability, and availability of more-efficient models among factors affecting efficiency standard ratings.

Subtitle C – Transportation Efficiency

Section 222, Greenhouse Gas Emissions Reductions through Transportation Efficiency: Amends Title VIII of the Clean Air Act to require states to establish goals for greenhouse gas reductions from the transportation sector and requires the submission of transportation plans to meet those goals by Metropolitan Planning Organizations for areas with populations exceeding 200,000 people. Authorizes a competitive grant program for development and implementation of plans.

Should Task Force consider recommendations that would better position Austin for future grants?

Subtitle D – Industrial Energy Efficiency Programs

Section 241, Industrial Plant Energy Efficiency Standards: Requires the Secretary of Energy to establish standards for industrial energy efficiency and to seek recognition of result by American National Standards Institute.

Section 242, Electric and Thermal Energy Efficiency Award Programs: Creates an award program for innovation in increasing the efficiency of thermal electric generation processes, including encouragement for utilities to capture and separately market excess thermal energy.

Same comment as above regarding whether Austin should adopt industrial energy efficiency standards and what gains/costs could be expected from either local or federal mandates? Are there ways to position AE to be in a better position for awards for thermal energy programs?

Subtitle G – Public Institutions

Section 261 – Allows grants for non profit hospitals and public health facilities, but does not address energy efficiency standards.

Can more focus on public institutions or hospitals allow for cost effective ways to exceed the 700 MW goal?

Title III – Reducing Global Warming

Section 702, Economy-wide Reduction Goals: States that the purpose of new provisions of Clean Air Act (new Title VII entitled Global Warming Pollution Reduction Program) is to reduce economy-wide global greenhouse gasses/carbon emissions to 3% below 2005 levels by 2012, 20% below by 2020, 42% below by 2030 and 83% by 2050).

The covered-entity reduction goals are the same as the economy-wide goals, except that the 2020 goal is 17 percent below 2005 levels.

These goals are more aggressive than the proposed AE goals in the original strawman, which are to cap carbon emissions at 2007 levels and reduce them to 2005 levels by 2014. According to AE, the cost to achieve the current AE goals will be \$18.8 million if offsets are purchased and \$253 Million if the carbon emission reductions are achieved by switching from coal to natural gas (based on estimated carbon offsets costs). What are the expected costs to achieve the federal goals and how can the Task Force's recommendations mitigate those costs? And the more fundamental question: how can the generation plan recommendation achieve federal and local goals at the least cost? Does a federal cap and trade program negate the benefit of locally reducing carbon emissions so long as offsets remain cheaper than eliminating the emissions or is there some inherent value (beyond the cost of offsets) in reducing reliance on coal or other carbon sources?

Section 722, Prohibition of Excess Emissions: Prohibits covered entities from emitting or having attributable greenhouse gases in excess of their allowable emissions level, which is determined by the number of emission allowances and offset credits they hold. Utilities become subject to the emissions requirements in 2012. Covered entities are able to offset up to 2 billion tons of emissions by using EPA-approved domestic and international offset credits, split evenly between international and domestic offsets. Beginning in 2017, covered entities using offsets must submit five tons of international offset credits for every four tons of emissions being offset. And in section 721, Waxman-Markey creates an economy-wide system of tradable emissions credits as a mechanism to achieve compliance at lower cost to the economy.

Should the Task Force recommend that AE establish an Austin based offset program to earn offsets, such as by ownership and operation of a project that installs solar home water heaters? Are there other benefits from targeting such a program on low income communities? Depending on the cost to earn the offset, this could be an income generating opportunity, particularly when domestic offsets become more valuable than foreign offsets.

Industrial sources that emit more than 25,000 tons of CO₂ per year are covered after 2014. Natural gas distribution companies become covered in 2016.

How can the generation plan recommendations encourage maximum cooperation/cost savings between AE and these other covered entities in achieving compliance?

