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CALIFORNIA CAN SATISFY 33 PERCENT OF ITS ELECTRICITY SUPPLY NEEDS WITH RENEWABLE ENERGY BY 2020 WITH LITTLE OR NO INCREASE IN ELECTRIC RATES

On November 1, 2005, the Center for Resource Solutions* submitted a 181-page report "Achieving a 33% Renewable Energy Target" to the California Public Utilities Commission (CPUC).

The report, prepared as the result of work funded by the Energy Foundation at the request of the CPUC, found that it is economically and technologically feasible for California to meet 33 percent of its electric power supply with wind, solar, geothermal and biomass resources by 2020.

Based on the best available data, the report determined that the state's investor owned utilities (IOUs) could reach a 33 percent target with little to no increase in rates. The RPS will result in small average rate increases through 2021, and beyond that will produce long-term rate savings. Overall, a 33 percent RPS is likely to result in net savings to California's electricity customers over a twenty-year period.

More specifically, using the best information available at this time, a 33 percent RPS would result in a small negative ratepayer impact in the first decade (2011-2020). On a net present value basis (2011\$, 9% discount rate), the RPS will increase costs to California IOU ratepayers by \$1.26 billion over the period 2011-2020, or roughly an average 0.57 percent rate increase over the period.

However, these cost increases are more than offset by longer-term ratepayer savings that accrue in the years 2021 to 2030, after the initial capital investments of the RPS have been completed. The net present value of RPS ratepayer impacts for the period 2011 to 2030 is - \$175 million (2011\$, 9% discount rate), in other words, a net savings.

These estimates are meant to be indicative rather than absolute since, as this analysis demonstrates, there is considerable uncertainty surrounding future rate projections and RPS costs. The two variables that most affect the results of this analysis are the natural gas forecast and the estimate of renewable energy costs.

Although there is much uncertainty surrounding the development of a 25-year natural gas price forecast, the report's authors believe that the forecast used in this analysis is conservative. At the time this analysis was done, current natural gas NYMEX future prices for the next year period range from \$10-14MMbtu. The natural gas price forecast used in this analysis does not reach a nominal price of \$10MMbtu until the year 2019, and does not reach \$14MMbtu until 2026.

Given the potential for future variability in these factors as well as transmission and greenhouse gas policies, the report suggests that it is important to adopt RPS policy mechanisms that allow the CPUC the flexibility to adapt to different future market scenarios as actual events unfold.

The report also found that there is a sufficient amount of renewable energy resources in California and neighboring states to meet the 33 percent target.

The report was discussed at the CPUC's business meeting on December 15, 2005 where the Commissioners recommended passing the report on to the California Environmental Protection Agency (Cal/EPA) to aid the Climate Action Team in planning to achieve the Governor's greenhouse gas reduction goals announced in June of this year.

A centerpiece of the Governor's plan is to increase the state's goal for renewable resources from the existing standard of 20 percent by 2010 to 33 percent by 2020. The CPUC requested this report to begin the process of assessing the feasibility of meeting this more aggressive target. The CPUC is charged with implementation of these goals for the State's investor owned utilities and other energy service providers.

"The 33 percent goal is a cornerstone of the Governor's greenhouse gas reduction policy and a policy of this state as set forth in the Energy Action Plan II. This report provides an excellent first cut at identifying the issues that must be tackled by this Commission and a framework for thinking about these issues as we move forward to make the goal a reality." said PUC Commissioner Grueneich.

The report is available to the public on the Center for Resource Solutions website at:
http://www.crs2.net/pub/Achieving_33_Percent_RPS_Report.pdf

It may also be found on the CPUC website at:
http://www.cpuc.ca.gov/word_pdf/misc/051102_FinalDraftReport_RenewableEnergy.pdf

* The Center for Resource Solutions (CRS) is a national nonprofit located in the Presidio of San Francisco. CRS operates national and international programs that design clean energy policies. For more information about CRS, visit <http://www.resource-solutions.org>.

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