area in 2010 with the acquisition of Green Mountain. The amount of capital that we will be investing in and around Green Mountains business in 2011 or to expand into new geographic markets, bigger customers segments and new complimentary green product offerings is fairly minimal.

And finally, and similarly and perhaps, contrary to popular investor belief, even if the STP nuclear development project stays on course, the development capital projected to be required of NRG in 2011 will be far less than half of what we invested in 2010 and will be a mere fraction of what we will be investing in solar projects and other capital allocation alternatives.

So this is a lot to digest, so let's go through a little bit more slowly, starting on Slide 7 with Green Mountain. Four months ago, we paid $357 million for a business that we expect to contribute $70 million, $80 million of EBITDA in 2011, plus, we expect Green Mountain to continue to deliver on a 20-plus percent compound annual growth rate trajectory that they have delivered for the past decade. But we didn't acquire Green Mountain just to continue with business as usual. We wanted to take advantage, and we wanted them to take advantage of what we believe are very substantial synergies between Green Mountain and NRG.

Essentially, we want Green Mountain to accelerate the depth and breadth of their growth in close cooperation with us on the same path that they were following on their own, which means expansion into a high retail price Northeast markets, where they start with a natural green-leaning constituency, also, expansion into the larger Commercial segment of the C&I market than they have previously sought to access. And finally, expansion of their value-added product offerings to include distributed green generation.

It's early days yet, but on at least the first two of these, they are already beginning to bear fruit. Green Mountain has established a small but fast-growing footprint in New York Zone J, and in terms of larger C&I customers, they have won landmark business like the Empire State Building. We expect to be reporting on these and many more successes from and with Green Mountain as the year progresses.

Turning to conventional generation on Slide 8. 2010 was an uneven year, with the successful acquisition of Cottonwood and the repowering at Devon and Middletown, balanced by the missed opportunities surrounding Dynegy's California asset. Cottonwood and Devon have been smoothly integrated into our South Central and NEPOOL lineups respectively, and we are very pleased with the results today.

Looking forward to 2011, we're very focused on the successful repowering of El Segundo, an advantage which we hope to derive from having a modern, fast-start, low-heat rate, combined-cycle plant inside the Los Angeles basin load pocket. Beyond El Segundo, we hope to make progress on similar repowering efforts at Astoria in New York City and Encina in San Diego County. Beyond our own Repowering pipeline, the capital we deploy in the acquisition of conventional power plants, obviously, will depend on market conditions and asset availability in our core regions.

While the acquisition market is lumpy, generalities are difficult and predictions are often proved wrong, the optimism I once held at the first half of 2011 would be a buyer's market for CCGTs in the United States has largely dissipated. I see no sign of a flood of assets on the market and the combined cycle of transactions which have been announced recently have been priced at levels significantly above what we could justify to ourselves or explain to our shareholders.

With respect to our nuclear project, while important steps forward have occurred in several areas since our last earnings call, very little of it can be seen with the naked eye. As before, really all critical aspects of the STP 3 & 4 project run off of our receipt of an acceptable conditional loan guarantee from the government. Certainly, it is a challenge for us to complete meaningful discussions about PPAs with potential off-takers, while the loan guarantee application remains pending.

So our exit ramp analysis, which is set forth on Slide 9, remains largely unchanged from the previous quarter. Likewise, our viewpoint with respect to NRG's continued participation in the project remains at the most challenging of these hurdles, which is the long-term off-take requirement, effectively needs to be addressed no later than the third quarter of 2011 before the project enters the substantial pre-construction phase.

As such, we reiterate the view which is clearly articulated in both our 10-K and in today's earnings release, that NRG will be in a position by late this summer to make a final decision on our continued financial participation in this project. At that point, the market should have substantially greater clarity about the prospects for this project and NRG's role in it.

While we understand that there is skepticism amongst some investors that the project can go forward in the current low gas price environment, we nonetheless, believe it might be helpful to you for us to outline as shown on Slide 10 the future capital commitment of NRG in respect to this project, should it stay on track, with NRG continuing to support it financially.

The overall message is that due to a combination of first, the very substantial sum that NRG has previously committed to the project development, particularly during the first half of 2010 after the settlement with CPS. Second, taking into account our expectation of an optimal hold amount in the project for NRG of approximately 40%, which is down from the 67% that we will own if and when TEPCO invests in a project post-loan guarantee award. And third, due to the value ascribed to NRG for its contribution of the site, NRG's cash commitment to the project going forward is less than what otherwise would be suggested by our projected ownership level.

In summary, should the project proceed to financial closing, the total cash commitment for NRG at our 40% hold level should be something just short of $800 million in aggregate, including cash invested to date. Beyond that, we are likely to have an LC commitment to a standby equity crossover line facility that will be fixed. And while that number has not yet been finally fixed, you should be thinking in the range of a few hundred million dollars maximum.

In exchange for this size investment in STP 3 & 4, we expect cash flow from dividends and tax benefits in the range of $500 million a year for the first several years of operations. Obviously, this is a very attractive return but one which we believe is well just justified given the extraordinary challenges of the undertaking.

Now pulling it back from where we hope the project will be in 2016 or 2017 to where we are here in the first quarter of 2011, you should be focused on what happens after announcements of acceptance of the loan guarantee. As the loan guarantee acceptance naturally will trigger certain funding obligations from our partners, NRG's share of cash development spent for the remainder of the development phase should approximate $50 million for all of 2011 and half that for 2012.

While our perspective 2011, 2012 development standard is perhaps substantially less than many in the market were anticipating, it remains a lot of money to us, and we're taking very seriously our commitment to retain our financial discipline around this project and prevent exposure of our balance sheet beyond the specific commitments that I've outlined in this presentation.

Now turning to Slide 11, last but certainly not least, there is the solar pipeline. I've said many times, and I'll repeat here, that in my 20 years in this business, I had never seen investment opportunities in this sector that offer more attractive combination of high returns, low construction risks, long-term PPAs and repeatable business opportunities than the utility-sized solar projects that we currently have in our advanced development portfolio.

As such, we intend to do as much of this business as we can get our hands on, with the result being that by the end of this year, we may well have a total initial equity investment in our solar portfolio that exceeds the total amount that we may ever invest in STP 3 & 4 at very attractive near-term returns. The limiting item for us in terms of these solar investments is our ability on our own to make optimal use of the considerable tax benefits which will be generated by these projects. This is a topic that Chris Schade will discuss in a few minutes.

What I will end by saying is that this extraordinary pipeline of utility-sized solar projects, which our colleagues at NRG Solar have managed to develop or acquire, provides us with a truly unique opportunity to develop over the next few years a solar portfolio of true scale and significant benefit, even in the context of the larger portfolio of NRG.

Ultimately, however, we fully recognize that the current generation of utility-sized solar and wind projects in the United States is largely enabled by favorable government policies and financial assistance. It seems likely that much of that special assistance is going to be phased out over the next few years, leaving renewable technologies to fend for themselves in the open market.

We do not believe that this will be the end of the flourishing market for solar generation. We do believe it will lead to a stronger and more accelerated transition from an industry that is currently biased towards utility-sized solar plants to one that's focused more on distributed and even residential solar solutions on rooftops and in parking lots.

We are already planning for this transition now within NRG, so that any potential decline in either the availability of utility-sized solar projects or in the attractiveness of the returns being realized on these projects, will be exceeded in aggregate by the increase in the business we are doing on smaller distributed and residential solar projects through our Green Mountain and even our Reliant retail sales channel.

With that, I'll turn it over to Mauricio.

Mauricio Gutierrez

Thank you, David, and good morning, everyone. NRG continued its strong operating and commercial performance during the fourth quarter, making 2010 one of NRG's best years. Slide 13 highlights a few of the key accomplishments achieved in 2010.

Starting with safety, we're particularly pleased with our record performance this year. Our OSHA recordable rate improved 26% over 2009. Our top performance remained strong with 90% availability of our baseload fleet, just shy of our 2009 level. This performance was achieved despite a forced outage event on our STP nuclear plant in November, which I will cover in more detail in the next slide.

On the environmental front, we delivered our second best year, and our FORNRG program far exceeded our 2010 goal. As I mentioned to you on our last call, controlling our cost is a priority, given the challenging economic environment our industry is facing.

Our Commercial Operations Group increased our hedge levels in 2011 and continues to look for opportunities to catch the odd years of favorable prices. We successfully transitioned to the Nodal Market in ERCOT and began integrating Green Mountain Energy and the Cottonwood combined cycle plant into our portfolio.

With respect to our projects under construction, the Indian River Unit 4 environmental back-end control project continues to be on track and on budget to be operational by January 2012. Our Middletown project in Connecticut received all major equipments in the fourth quarter and continues to be on schedule for operation this summer. Finally, the El Segundo Energy Center completed aboveground demolition of two existing units and secured major equipment orders. El Segundo is on track to be operational by the summer of 2013.

Turning to our plant performance metrics on Slide 14. Safety continues to be our number one priority. We are very proud to report that we achieved top decile in the industry, making 2010 our best OSHA recordable year. We have 25 sites with no injuries and nine sites certified or recertified as OSHA VPP Star worksites.

Net generation decreased by 6% in the fourth quarter due to mild weather across Texas and a 22-day on-plan outage at STP Unit 2 during the month of November. The forced outage event was the result of a breaker failure during routine testing and was extended to repair a reactor coolant pump seal. In order to prevent recurrence, similar electric components were checked in both units. Unit 2 has operated without any issues since it was brought back to service on November 26.

For the full year, net generation was flat from 2009 levels. Increased generation in the Northeast and South Central regions driven by the strong summer weather and the addition of Cottonwood, were offset by lower generation in California and Texas.

For 2010, our coal fleet availability finished the year above the sub-quarter performance level for the industry. WA Parish led the fleet with 92.6% availability factor, and Limestone had the best reliability for the year, with a 1.6% forced outage rate.

Our FORNRG 2.0 program exceeded the 2010 goal by $49 million, and it is on track to achieve our goal of $150 million by 2011, one year earlier than planned. Savings were achieved through a combination of reliability, capacity and efficiency improvements at generating assets and cost savings across our corporate and regional groups.

Turning to our retail operations on Slide 15, we closed out the year with another strong quarter. Volumes and margins were consistent with our forecast, while Operations delivered better-than-expected asset management and lower operational costs.

The Mass segment continues to drive segment improvement in net customer attrition with a 57% reduction in the fourth quarter versus 2009. This result was driven by marketing, sales and introduction of innovative products to meet our customer needs.

In 2010, we led Texas in innovation, enrolling over 175,000 customers on our Reliant e-Sense product and services that utilize smart grid technology. We also introduced new and unique offers like carbon-state [ph] and home protection products, adding not only incremental EBITDA but increased customer stickiness.

We continue to maintain the lowest PUC customer complaint rate while balancing customer counterpricing. Throughout 2010, we aligned to successfully demonstrate that we have stabilized customer attrition and expect to achieve zero net attrition in 2011.

In the C&I segment, both renewal and new deal win rates continue to improve. We have expanded our business in several Northeast states where we can leverage existing energy assets and increase product offerings to include products such as backlog generation. These provides a solid platform to grow our business in 2011.

Business continues to show some fundamentals as you can see on Slide 16. Weather-normalized demand grew by 2% year-on-year and ERCOT set a new winter peak low of 57 kilowatts in February, an increase of almost 2.5% from the previous record. I'd like to take this opportunity to address the events in Texas on February 2.

The men and women of NRG Texas worked very hard to help meet the high demand for electricity due to the extreme cold conditions, increasing our generation by more than 60% from the previous day. Although we had some operational issues, of the approximately 9,500 megawatts of power we had available in Texas during the low-shed event, we maintained between 97% and 91% of that capacity online. I want to thank all our employees in Texas for their dedication and extraordinary efforts during these events.

Now moving on to reserve volumes in ERCOT, we see a positive feature of our generation portfolio with reserved margins tightening faster than expected. This is to some extent reflected in the forward heat rates, as you can see on the chart on the lower right-hand quarter. We believe this trend will continue, given the robust growth and the expectation that asset retirement will outpace new builds. We have not seen as much coal-to-gas switching in Texas as we have in the Northeast and Southeast regions. In fact, cash generation was down year-on-year due to increases in new coal and wind generation in Texas.

In the Northeast, the back-end market continues to make some news. In New York, the recent FERC order to increase cost of new entry should provide a boost to capacity prices in New York City and rest of state, benefiting our New York portfolio. In PJM, prices remain uncertain until more clarity is given around the minimum offer price rule, the subsidized generation in New Jersey and Maryland and review demand outlook.

Moving on to Slide 17, you can see our detailed plan to control air emissions for each of our coal plants. As stated in our last earnings call, our plan is to invest approximately $720 million through 2015 in environmental projects tailored to comply with future regulations.

Just to remind everyone, the proposed CAIR rule does not require additional capital for compliance. The HAP MACT proposed rule should be released in mid-March, and as you can see in the table, our plant considers mercury controls on all our coal units.

Intake modifications and repowering are expected to meet once for cooling requirements. We only have dry fly ash disposals at our all coal facilities. And finally, in most of our facilities, we burn low sulfur, low chlorine PRB coal.

Moving on to our hedge profile and commodity sensitivities on Slide 18. Our baseload portfolio is now 100% hedged in 2011 and 50% hedged in 2012, providing the protection in the short term where gas prices continue to be weaker given the oversupply situation. Beyond 2012, we choose to remain significantly open.

After two years of low gas prices, we believe the downside risk is limited. Our combination of incremental demand from the power sector, particularly in light of possible coal plant retirements, some signs of the interest rate by producers, indication that drilling to home acreage may be ending, and a move from dry to wet gas production will provide better opportunities to catch our baseload portfolio in the future.

With respect to retail, we have increased our pipe load to 66% in 2011 from 57% in the third quarter. We continue to match as much generation load as possible to start maximum synergies between our retail and wholesale portfolios.

Our power and coal hedges continue to be well managed in 2011 and 2012. Given the shape of the coal curve and steep contango, we have not added any additional occasions since the last quarter. We also remain well hedged in terms of coal transportation now for some time.

Our sensitivity to commodity prices is agreeable for 2011, with 2012 to 2015 largely unchanged from last quarter. Let me remind you that this sensitivity is around our baseload portfolio. Interest expense, our portfolio is well-positioned to benefit, particularly, in the Texas and South Central regions.

With that, I will turn it over to Chris who will discuss our financial results.

Christian Schade

Thank you, Mauricio, and good morning. Beginning with the financial summary on Slide 20, full-year 2010 adjusted EBITDA was $2.514 billion, just shy of the record 2009 adjusted EBITDA of $2.618 billion and within our previously stated guidance of $2.5 billion to $2.55 billion. As a result of our continued strong operating performance, adjusted cash flow from operations for 2010 was robust at $1.76 billion.

The company's liquidity position at year end, excluding funds deposited by counterparties, stood at nearly $4.3 billion, a $458 million increase from December 31, 2009, liquidity of approximately $3.8 billion. Our cash balance at year end 2010 available for both working capital as well as our 2011 capital allocation program was approximately $2.9 billion.

Now turning to a summary of our 2011 guidance in Capital Allocation Plan. First, we reaffirmed the preliminary 2011 EBITDA guidance range of $1.75 billion to $1.95 billion. Second, and as part of our 2011 capital allocation program, we are planning to repurchase $180 million of common stock, and complete $240 million of term loan debt repayments and $39 million for additional facilities, all of which is consistent with NRG's commitment to return excess capital to its stakeholders. Third, in 2011, in addition to the amount deferred from 2010 as a result of extending the cash grant availability, we are currently planning to commit an additional $640 million of net investment to advance our Repowering and renewable development program, particularly, utility-scale solar.

Now turning to a more detailed review of 2010 adjusted EBITDA result from Slide 21. The company reported near record results of $2.514 billion adjusted EBITDA, only $104 million lower than the 2009 adjusted EBITDA of $2.618 billion. These results were achieved despite the decline in forward prices across all of our regions and clearly benefited from our wholesale generation hedging program and the continued strong performance of Reliant Energy.

During the year, Reliant Energy contributed $711 million of adjusted EBITDA. Comparatively, these results are lower by $158 million from 2009 as we overlined for only eight months of that year. The year-on-year decline was driven by an 18% decline in Mass margins, which were the direct result of price reductions enacted following the acquisition, as well as lower margins on customer renewals and new customer acquisitions reflective of the competitive market. All told, for 2010, Reliant saw net customer attrition rates improve to 0.4% from 0.7% in 2009 with total customers at year end steady at 1.5 million.

The wholesale business meanwhile generated $1.8 billion in adjusted EBITDA, $173 million lower as compared to a record 2009 EBITDA of $1.976 billion. The comparative year-to-date decline is largely explained by a 32% drop in baseload hedge prices in the Northeast, as well as lower margins in Texas, caused by a 60% increase in fuel costs, due largely to higher coal transportation costs at our WA Parish facility. These results were partially offset by an increase in adjusted EBITDA of $28 million from the South Central region due to increases in generation and contracted sales.

Also increasing adjusted EBITDA were our newly acquired assets, including Green Mountain Energy, Cottonwood, Northwind Phoenix, South Trent Wind Farm, as well as the full year of operations from the Blythe solar project.

For the fourth quarter, the company reported adjusted EBITDA results of $444 million, a $45 million decline versus 2009. Reliant Energy contributed $117 million of adjusted EBITDA compared to $104 million for the fourth quarter of 2009. Reliant's quarterly results were favorable $13 million driven by an improvement in operating costs primarily due to better customer payment habits as related to a decrease in bad debt expense.

In the fourth quarter of 2010, our Wholesale Generation business contributed $327 million of adjusted EBITDA, a $58 million decline compared to fourth quarter '09. The change in results can largely be attributed to the following items: In the Northeast region, 35% lower hedge prices and a 25% decrease in generation resulting in a $57 million decline in energy margins quarter-over-quarter. The decrease in generation was largely a result of coal-to-natural gas switching and offsetting this decline in energy margins were favorable year-on-year operating and maintenance expenses of $13 million.

In Texas, the 10% decline in generation at the Limestone and WA Parish facilities due to lower power prices and reduced demand led to a 6% decline in overall generation for the region. Offsetting this decline were favorable year-on-year operating expenses of $17 million that included gain on land sales of $6 million in 2010.

Now turning to Slide 22. As I mentioned a moment ago, total liquidity at year-end 2010 excluding funds deposited by hedged counterparts remained strong at nearly $4.252 billion. Total cash stood at $2.959 billion, an increase of $653 million as compared to the 2009 year-end cash balance of $2.3 billion. The drivers of the cash increase included adjusted cash from operations of $1.76 billion and debt proceeds of $1.317 billion.

These increases were offset by several items: First, five completed acquisitions totaling about $1 billion, which included $507 million for Cottonwood generation station, $357 million for Green Mountain, $100 million for Northwind Phoenix, $32 million for South Trent Wind Farm and for the U.S. solar portfolio, 720 megawatts of development projects in nine states in California and Arizona. Second, debt and fee payments totaling $813 million, including Term Loan B payments of $453 million and a repayment of a common stock fund or CSF of $190 million.

And third, capital expenditures excluding NINA of $445 million, including $199 million of maintenance, $184 million of environmental, primarily related to the Indian River Air Quality Control System project, and $62 million of growth investments. For the full year, we made cash contributions to NINA totaling $170 million primarily in the first half of 2010. And finally, we completed share repurchases of 8.5 million shares, totaling $180 million.

Now turning to 2011 guidance on Slide 23. Our EBITDA guidance remains unchanged from our November 24 range of $1.75 billion to $1.95 billion. Included in this guidance range are wholesale expectations of $1.2 billion to $1.3 billion, retail expectations of $480 million to $570 million, and Green Mountain of $70 million to $80 million. As Mauricio discussed earlier, we are about 100% hedged on our baseload generation for 2011 and are thus comfortable with our forecasted results.

As we look forward to our Wholesale business in 2012, we are currently in excess 50% hedged with a higher average price in 2011 as indicated in our SEC filings. Due to this position and based on the current forward curves, we expect flat to marginally lower year-on-year wholesale results in 2012 from 2011. These results will be supplemented with adjusted EBITDA of $85 million from our repowering and solar investments in 2012 that are not subject to market fluctuations.

For our retail business in 2011, our current expectations, assuming normal weather, are an EBITDA range of $480 million to $570 million, the decrease in 2011 guidance compared to current 2010 results is largely explained by lower unit margins in Reliant's Mass business. Reliant's C&I business margins are also expected to decline slightly, but be directly offset by higher terawatt-hours served, reflecting our continued dedication to this growing client base in both Texas and PJM.

Finally, we expect Green Mountain Energy to contribute $70 million to $80 million of EBITDA. We are very excited about enhancing the growth prospects for our Green Energy Retail business during the process of integrating the business with our growing renewables portfolio to enhance these future growth prospects.

During our Q3 earnings call, we discussed the 2011 free cash flow guidance of $425 million to $625 million, and we now currently anticipate free cash flow for 2011 to be in a range of $150 million to $350 million. The difference in guidance is largely explained by certain timing of solar projects, due to Congress extending the availability of cash grants for renewable projects through 2011. NRG postponed its large investments in solar projects from 2010 to 2011, resulting in $267 million of solar expenditures pushed into '11 and relates primarily to our Agua Caliente, Ivanpah and CVSR solar projects.

As we often like to emphasize, we are in a strong cash flow position based on Friday's closing stock price of $20.89 and our affirmed outlook. Free cash flow before growth yield currently stands at between 16% to 20%, or $3.36 to $4.17 per share.

Slide 24 shows the company's projected 2011 year-end cash position which we project to be about $2.5 billion. Beginning with the portion of the Capital Allocation Plan that includes share repurchases and debt repayments in 2011, the company intends to repurchase $180 million of common stock, which is within the constraint of the restricted payments basket; repay $240 million of debt related to our Term Loan B agreement; and approximately $39 million in other facilities. It's important to note that the company made a Term Loan B prepayment in November that totaled $200 million.

And finally, complete $907 million of capital allocation in the following projects: $50 million in NINA; $219 million for other Repowering investments including El Segundo, GenConn Middletown, eVgo, Texas Reliability and Princeton Hospital and $638 million for solar projects, net of cash grant proceeds, and including the $267 million of deferred payments from 2010.

During the third quarter conference call, I also mentioned that we usually maintain a minimum cash balance of $700 million largely for working capital margin requirements, the timing of cash payments, of interests, property taxes, as well as equity for projects we have under construction throughout the year. Thus, for 2011, we estimate a balance of just over $1.8 billion to allocate between perhaps additional share repurchases, contingent on the restricted payments basket expansion, further investments of high-growth opportunities and continued opportunistic management of our debt structure.

On January 11, the company issued $1.2 billion of 7 5/8 senior notes due 2018 and announced the simultaneous cash tender for $1.2 billion of the outstanding 7 1/4 senior notes due 2014. As of January 25, nearly 945 million bonds have tendered, and the remaining 250 million will be redeemed by the end of February pursuant to the embedded coal price. As a result, we've improved our debt maturity profile, all of our public debt matures after 2016, and replace the restricted covenant package with one permitting greater efficiency and flexibility to return value to all NRG stakeholders.

On a go forward basis, we will continue to moderately embed in calls in the 2016 and '17 maturities and be opportunistic about replacing those bonds with less restricted covenant packages, similarly to how we handle the 2014 maturity.

Looking at NRG's combined Repowering and Solar portfolio and our EBITDA contribution on Slide 25, you can clearly see the benefit of the program with nearly $550 million of recurring contribution by 2015.

During the fourth quarter, our El Segundo Repowering project received prior approval from the California Public Utilities Commission for a ten-year Power Purchase Agreement with Southern California Edison. Commercial operation's expected in the summer of 2013.

Our large utility-scale solar projects will also begin to reach commercial operations between the summer of '13 and the first quarter of 2014, and these projects collectively are driving this EBITDA growth. These solar investments are attractive for their high-teens returns, very low construction risks and offtake agreement of 20-plus years with highly rated counterparties. We will continue to provide updates on the progress of these projects as they move into construction and operation.

As we continue to invest and grow our solar portfolio, it's important to highlight a few economic benefits created with these projects. Slide 26 shows how the combination of cash grant, maker's depreciation and strong cash flows from the PPAs for our projects result in a payback for our investments, in some cases by 2014, and retain stable cash flows for the remaining term of the PPAs.

Though we believe there will be a turnaround in commodity markets, we are mindful of our ability to create enough taxable income for us to fully absorb tax benefits created by these solar investments. There is clearly a limit to how much tax efficiency we could absorb in any one year before reducing the total project returns. As such, to both minimize the tax leakage and enhance our returns, in 2011, we will pursue new equity investors for our solar portfolio, who have both the appetite for tax benefits and seek investment to one of the largest utility-scale solar portfolios in the world. New equity investors would not only help to optimize our existing tax position but allow us to continue to invest in future projects with high returns.

We expect to launch this initiative soon and look forward to sharing the progress in the future. Now I'll pass it back to David for final comments.

David Crane

Thank you, Chris, and thank you, Mauricio. And so in conclusion, on Slide 28, we put what we think are some of the value drivers around the investment proposition at NRG. And it starts with the fact that 2 1/2 years into the commodity price down cycle, it appears to us that the end is in sight, the bottom of the trough has been reached, and the only way to go is up. When or how quickly gas prices will recover remains open to conjecture, but the case for rising heat rates in our core market of Texas is clear and compelling. And we've positioned our portfolio and our hedge both to benefit from that upturn.

Second, even in a political environment that has turned more conservative in the past year, market mandates for renewable generation and for solar power in particular, remain well supported in both the red and blue states. And the result for us has been a fast-growing portfolio of projects that will contribute substantially to shareholder value creation over the short to medium-term.

Finally, there's the inherent value unique amongst our peer group of Wholesale generation combined with the leading retail position. While we have executed to such great success in Texas, together with Reliant, we are now in position to replicate with Green Mountain in the fast-growing green and retail energy sector. It's a bright future indeed, and for all of us at NRG, we'll strive to realize its vantage on behalf of the shareholders of NRG.

So Deanna, with that, we'd be happy to take some questions.

Question-and-Answer Session

Operator

[Operator Instructions] The first question will come from the line of Daniel Eggers, Crédit Suisse.

Dan Eggers - Crédit Suisse AG

David, I was just trying to marry up some of the comments made about some of the solar investment opportunities. If I look at Slides 25 and 26, the cash investment and then the earnings contribution you guys show there, is that based on the things that are in hand right now, or is there a assumption of the amount of incremental projects who would have to get signed this year to help get to those numbers?

David Crane

I think what we're showing, Chris, correct me if I'm wrong, is the Tier 1, which are projects, which in my personal estimation are ones that have a 90-plus percent chance of achieving financial closure.

Christian Schade

Yes, that's actually correct, Dan.

Dan Eggers - Crédit Suisse AG

So these are things that are already in place, and this would be less contribution than what you said in your comments earlier, David, about having equity investment and solar greater than what you do see in South Texas ultimately?

David Crane

I'm sorry. Say it again?

Dan Eggers - Crédit Suisse AG

So this earnings contribution represents an investment less than what you think you can get to from the solar perspective based on your comments earlier in the presentation?

David Crane

I mean there are more projects behind this portfolio.

Dan Eggers - Crédit Suisse AG

When do you see the opportunity this year to announce off projects? And how would you see this sell down equity go as far as changing the earnings contribution profile from these projects? And how much could you sell down, do you think?

Christian Schade

Well, we're going to get to how much we can sell down as we move through the process. But very clearly, any amount we sell down will sort of be a pro rata reduction in EBITDA. And so depending on how much we do, we'll certainly let you know. But we do believe that the sell down will allow us to provide incremental more equity into other projects we have yet to announce. But what David said, we're on the bubble given the benefits from the government largesse, which we think still exist but perhaps will run out in the next couple years. And those projects will also be assumed as sort of returns consistent with what we've seen to date.

Dan Eggers - Crédit Suisse AG

And I guess one last question just on South Texas. David, if you could maybe just -- we go through the numbers as far as how much cash you expect to throw off in the project, and then to clarify that, contribution's based on kind of the pricing you'd need it to be able to receive in order to earn economic return on that project?

David Crane

Well, so you're saying you're -- Dan, you're actually looking forward to 2016 and '17? Yes, I mean, looking at Page 10, I mean, through the first few years, when we've talked about receiving $500 million of cash, that's based on our view on where gas prices go, which is, obviously, some way up from where they are now, sort of into the $6 to $7 range. Having said that, Dan, we've stressed the returns on the nuclear project from an IRR perspective, sort of $4 gas in perpetuity model. And the IRR in the project, it would still be in double digits, but obviously, the higher gas prices, the better we do. But it works, the numbers work even at a $4 gas environment. And the reason that is the case, Dan, is because, obviously, the tax benefits associated with nuclear project, particularly, the production tax credits, meaning that through the first several years of the nuclear project, the economics are more driven actually by the tax benefits than they are by the price of electricity.

Dan Eggers - Crédit Suisse AG

Do you see IRR as working in $4 gas to the equivalent of a mid-30s power price, you would see the plant being economic?

David Crane

In a $4 gas, the plant is, yes. I mean, again, it's a low-teen return. I'm not sure that -- it's not the return we're seeking, but it's not a single digit return or a negative return.

Operator

The next question will come from the line of Ameet Thakkar, Bank of America Merrill Lynch.

Ameet Thakkar - BofA Merrill Lynch

Mauricio, you kind of indicated that the path with hedging, despite, I guess, some uptick in heat rates in Texas and you also didn't do much in the way of coal as well. I mean is your expectation that PRB prices should follow gas down? Or are you guys a little bit more neutral on gas at this point?

Mauricio Gutierrez

Well, I mean, if you look at our hedge profile, the next few years, we're pretty well hedged on both sides, so power and coal. We can justify the contango that exists with the coal curve. And given the inventory that we have and the hedge profile, we think that we can weigh to be more opportunistic about when to catch the coal prices. With respect to gas, we continue to see further declines in the front part of the curve, which we've been pretty well insulated. But as I mentioned in my remarks, I mean, I think when you look at 2012 and beyond, and where those price levels are, we see very little downside risk from that. And we think that there are several factors that are converging that could potentially move gas prices, assuming they could be higher than where they are today.

Ameet Thakkar - BofA Merrill Lynch

And then David, real quick on STP. I just want to make sure I understood, I guess, some of your answers to the previous questions. You see returns in kind of the teens area, given the $4 gas for STP?

David Crane

Yes, so the returns would be in the teens area in the $4, in perpetuity model. Again, this is based on the idea that we're running a model where there's roughly 1,000 megawatts of power sold by long-term contract, and the rest is taken into the merchant market. So the $4 gas would apply to the 2,000 in the merchant market. And yes, you're right, what it shows is a return in the teens, in that sensitivity. I would also tell you, Ameet, both in response to your question and I should say to Dan, also, we run this with no value associated to the zero-carbon aspect of it, so the price on carbon directly or indirectly would be on top of this.

Ameet Thakkar - BofA Merrill Lynch

And then so is like the 1,000 megawatts of PPA cover, I guess, under that analysis, is that really kind of the goal to kind of continue to move forward and not exit, I guess, exit land for on Slide 9?

David Crane

Well, Ameet, almost as a -- I mean, from the beginning, I think that we have said to our investor base that we, at least, would not proceed with the project unless there was a significant amount of long-term offtake associated with the project. And so, roughly 1,000 megawatts has been something we talked about from the beginning. On top of that, Ameet, the conditional loan guarantee, if and when it's announced, it's called a conditional loan guarantee because there are conditions associated with it. And probably the most substantive condition, the condition we would be focused on is that the government would require us to have approximately that same amount of long-term offtake agreement contracted, which was a condition, again that we were happy to agree with the government on since we had said that we wouldn't go forward with it either. So that's why we would be doing that.

Operator

And the next question will come from the line of Ted Durbin, Goldman Sachs.

Theodore Durbin - Goldman Sachs Group Inc.

If I could just ask a little bit about the capital allocation. You're obviously coming out of 2010 here with a high cash balance. I'm just trying to understand a little bit better the allocation of the capital towards the renewables and whatnot, maybe extending that relative to between cash to stakeholders. Could you just talk a little bit more about that?

Christian Schade

As we said, we're committing to a $180 million stock repurchase, and that's within the confines of our restrictive payment basket. We're also going to be making required debt repayments under our term loan program, Term Loan B program. We've also earmarked potential investment in our solar projects, and these are projects which we had -- some of which we're announced late last year and early this year and would be subject to the cash grant program under the government. So all of those projects and repowering projects from El Segundo and GenConn Middletown. But those are the programs at least that were part of the capital allocation program for this year. That's what we've announced. We have $1.8 billion after which we would be able to deploy into additional repowering should they be available and new solar projects that we see on the horizon, as I've said before, all of which offer us the opportunity for very attractive returns.

David Crane

And just to add, Ted, I think you phrased the question almost as if it was an either/or, and I guess that may be a little different. I mean, given the company's free cash flow generation and the cash we have on hand, we haven't really seen it as an either/or. In terms of returning capital to shareholders through the share buyback, we do as much as we can under the restrictive payment basket. Over the past years, we've constantly evaluated whether or not we could negotiate a way to have more room to do more, but the expense of doing that has always made that impractical. So from our perspective, it has not been an either/or decision. It's been do both.

Theodore Durbin - Goldman Sachs Group Inc.

Does that cost of getting the ability to do more of a buyback, you're still seeing that as not worth the expense of getting that?

Christian Schade

That's right. We think the expense to negotiate with the bondholders is being punitive. And as I said in the prepared remarks, the approach that we took on the 2014 maturity to wait for the calls to come due than to call away and refinance was we felt unattractive and a cost-beneficial way to do it. We have calls coming up in February for the 2016 maturity which we'll keep an eye on. The 2017 are not yet callable, will be so within a year. The high-yield market remains very attractive from financing perspectives, so we'll continue to look at that closely. But just to further what David said, with the excess cash in addition to the $180 million as we said, we'll certainly consider future stock repurchases if it can fall within the confines of hedging expansion we see in our restrictive payments basket throughout the year as well.

Theodore Durbin - Goldman Sachs Group Inc.

I appreciate the commentary on sort of the assets side. It sounds like you're not seeing the values on the CCGT side that you were before, but you did do the Cottonwood transaction. Are there other holes in your portfolio, where you say, "Geez, we'd really like to add some mid-merit assets whether it's more in South Central or whatnot?" And kind of talk about where you'd like to build up the portfolio.

David Crane

Well, I think the place where we'd like to build up the portfolio, and again, we've been fairly -- well, it took us six years to execute on the idea that we needed a load following plant in South Central. So just because I say this, I don't want you to think any sort of announcement's around the corner, because I'm actually skeptical that we can achieve anything. But we would definitely like to have some more baseload-following capability in PJM, particularly Eastern PJM. Having said that, we don't have any optimism about anything coming available in that footprint that we would find probably at a reasonable price. But we keep our ear to the ground. I would say that has been our single greatest priority second to backing up Big Cajun, which we've now achieved with Cotton.

Operator

And the next question will come from the line of Jonathan Arnold, Deutsche Bank.

Jonathan Arnold - Deutsche Bank AG

My question is, on STP, you believe the option for the second 10%, the TEPCO would take -- had a May expiration date on it, we recall from the original 8-K. But is there a similar date around the base 10% investment that's contingent on the loan guarantee acceptance? Is May a kind of drop-dead date for that whole arrangement with TEPCO?

David Crane

I don't believe there's a drop-dead date. And John, Tokyo Electric well understands the pace of development. I don't want to speak to them, but I think their enthusiasm for participating in this project is unchanged from when we announced the deal a year ago. So I don't remember any sense of date, but I have a very high level of confidence that if the loan guarantee comes that Tokyo Electric will participate in the project.

Jonathan Arnold - Deutsche Bank AG

And can you also give us a sense of -- well, obviously, your contribution is relatively small over this '11, '12 period. What would the $25 million in '12 be absent additional sell downs? And maybe some kind of sense of how much is actually being spent on the project itself during this next couple of years.

Christian Schade

Well, what it would be without the sell down, I'll have to get back to you on that. The amount of money that has to be invested towards in order for us to proceed is it's several hundred million dollars. But Jonathan, it's really hard to put it in those terms. Because like a good portion of it is long lead time materials in Japan which are actually funded with the credit facility from Toshiba. So maybe we can break out and provide it to you or do it next quarter. Just the development spend for now, in order for us to proceed against the sources of capital, because it's really not useful if you look at it as one-lump sum, because various things are paid for with different buckets of money.

Jonathan Arnold - Deutsche Bank AG

And if I may just on one other topic, what indications are you getting from DOE on these discussions at a level of hedging through PPAs that would be acceptable to them on the project?

David Crane

Well, I think that the condition is very specific. And I think back, it's the same as I answered to Ameet. It's something just less than 1,000 megawatts.

Operator

The next question will come from the line of Jay Dobson, Wunderlich Securities.

James Dobson - Wunderlich Securities Inc.

I was hoping you could give us some insight into the offtake discussions. The local media's covered some interesting transactions, or at least, proposals that you had. So I'm just wondering if you can give us some insight into where things stand and sort of what your level of optimism is currently.

David Crane

It's a good question, and I think what I would say without -- I mean, it's difficult to comment with discussions that are underway. And in fact, normally, we don't comment on it but since as you said, there's been discussions by the public, I guess I should say some things. I would say, first of all, I think there's an openness, a willingness, and interest on several load-serving entities, large load-serving entities in the Texas market to talk about long-term offtake. And I would also say that the events of early February in Texas, where a part of the reason the state had rolling brownouts or even blackouts is because people couldn't get gas to some power plants, I think has reinforced the idea that having fuel diversity in the state is something that load-serving entities want to have. So there's a fairly high level of interest from various parties, but the big qualifier I always put on this question is, right now, as you say, it's really discussions. I mean, the project isn't really real to off-takers until we have a loan guarantee. So I would describe anything that we're doing with any counterparty at this point is being preliminary. And so that's what I would tell you. And based on what we're being told by the camp, their interest level, I'm guardedly optimistic. But mainly, my main attitude towards all this is, let's wait and see what happens when the loan guarantee's announced, because that's when ourselves and our counterparties are going to have to get down to business, and people are going to have to make commitments on both sides. So that's the main thing, and what we're trying to empathize here is that, that phase, and hopefully that phase will begin within the coming weeks, is something that basically needs to be resolved by the summer so that we can all have clarity as within the company and U.S. investors and analysts as to where we stand vis-à-vis this project.

James Dobson - Wunderlich Securities Inc.

As an unrelated follow-up, on the solar side, I'm not sure if this is good for your or for Chris. I assume in addition to selling an equity stake, you'd consider selling a tax equity there, and how do you consider those two alternatives?

Christian Schade

Yes, very much so. I think the equity stake that we are contemplating is tax equity, it's a structuring issue. But we're certainly looking to pass off the tax attributes that are generated from this portfolio to tax equity investors. I think, one thing as a follow-up to a question before is that we'd certainly be looking to sell this equity at a premium. The returns that we're seeing perhaps from these investors are below the expected returns that we see in the high-teens, and so that sort of premium or IRR arbitrage gain will certainly benefit us in having development premium for this. But our goal here both is to bring equity into these projects and also, to lay off some of the tax that perhaps, does not necessarily accrue to NRG.

James Dobson - Wunderlich Securities Inc.

And Chris just a last follow-up, the capacity of the RP basket at year end?

Christian Schade

It was about $160 million. So the $180 million that we announced today will be spread out for a couple of quarters.

Operator

The next question will come from the line of Brandon Blossman, Tudor, Pickering Holt & Co.

Brandon Blossman - Tudor, Pickering, Holt & Co. Securities, Inc.

I guess just a follow-up on the tax equity question, probably for Chris. Just to be clear, is the tax equity partner or sell down required to optimize the tax benefits of the current solar portfolio, or is that something you need to do to increase the size of that portfolio?

Christian Schade

I think it's not necessarily required. I think it benefits the returns of the portfolio and allows us to continue to invest in the space. As David said, we're seeing a lot of opportunities elsewhere, and I think when we start to layer on other utility-sized projects in addition to what we have, there is a limit to the capacity of tax attributes that we can assume. So we think it's important. We're seeing a lot of interest and opportunities to invest in this space by sort of nontraditional investors who want to get green, and so we think it's a big opportunity for us, who are certain taxpayers as well. So it's for us to check a lot of boxes along the way. First and foremost to optimize our tax position in appropriate years, as well as to allow us to continue to invest in the space.

Brandon Blossman - Tudor, Pickering, Holt & Co. Securities, Inc.

And how does that dovetail with STP's tax attributes? Is that far enough out so that there's no overlap here or concerns about maximizing that value?

Christian Schade

It is far enough out that we're not perspiring about the tax attributes that it generates. But certainly, it's a topic that we will address at due time. And also, would speak to our underlying business that we hope and certainly think will grow enough to burn through these NOLs and to continue to generate the taxable asset side in those years. So we're confident of that.

Brandon Blossman - Tudor, Pickering, Holt & Co. Securities, Inc.

And David, as a follow up, not that anyone wants this to happen, but if there is an exit ramp for STP, can you describe what that looks like? Is there a project to be had at some point in the future, given that this is a particularly attractive development project?

David Crane

Well, Brandon, I guess, what I would say, on a few fronts. I mean it sort of depends on which exit ramp you're talking about. And I'm just speculating on things which of course, we don't hope to happen. I mean from my perspective, I think if something happens during this year that caused the entire project to go away, we would probably finish the licensing process, which is a small fraction of the overall development spend. But we're so far along with the NRC that to stop it this close to the end would not make sense. But beyond that, would the project go forward? I think it depends on which exit ramp it is. And again, I don't mean to speak for the other partners, because I want to emphasize every NRG investor on the call. We do not have the right to kill the STP 3 & 4 project. We just have the right to stop our own financial contribution to it. But I would say, if the exit ramp is that, actually it turns out that there is no loan guarantee in the offing -- I haven't actually asked this question directly, but I think our partners in Japan -- and we would be aligned that there would be, that the project would stop if there's no hope of a federal loan guarantee. If on the other hand, there was a federal loan guarantee, but we were taking the exit ramp because we were unable to lineup the offtake, I don't know what our partners would do in that circumstance. Maybe they would continue with the project, that would be their prerogative to do. I just know that if we don't have that offtake arrangement, then we will stop funding.

Brandon Blossman - Tudor, Pickering, Holt & Co. Securities, Inc.

And that would be not the 1,000 megawatts, but isn't that predicated on the loan guarantee or the loan guarantee predicated on the 1,000 megawatts?

David Crane

It is, but one of the reasons why I don't know -- I don't remember the exact terms, the exact words of the conditional loan guarantee, but I know that we do not have the opportunity at NRG to solve for the offtake arrangement, because I think the condition is offtake agreements with investment grade offtakers. Our Japanese partners who are investment grade would have that opportunity should they so choose to correct that on their own. We don't have that type of power, so that's not a question for us.

Operator

The next question will come from the line of Brian Chin, Citigroup.

Brian Chin - Citigroup Inc

What's the rough range of construction cost estimates in dollar per KW for the solar PV facilities that you are seeing, and also for the solar thermal side?

Christian Schade

The range, well, I think we would say that the range right now is 3,500 to 4,000 per KW, and I don't know, that would be for the PV -- I can't tell you -- the solar thermal would probably be in the same range.

Brian Chin - Citigroup Inc

And then would it be fair to say that $4 sustaining perpetual natural gas price environment that you'd still see solar generating returns in the double digits as well? And is it higher or lower than nuclear?

David Crane

Well, we haven't compared them side-by-side. I think it's fair to say that like nuclear, the solar projects, at this point, the economics are very heavily driven by the tax benefits. But beyond that, the real difference between the two is that every solar project we're doing is completely not merchant. It's totally PPA. So I don't think -- in fact, when we talk about taking the company's financial performance and sort of de-linking it to natural gas prices, we put renewables together with retail in parts of our EBITDA stream that are not associated with natural gas prices, because of the fact that all of the economics are derived from long-term PPAs.

Brian Chin - Citigroup Inc

Can you talk just a little bit about from your perspective, what the FERC's order in the New York ISO and the capacity market situation up there? What's changed longer-term, and how much of a positive is that for you guys, or is that even material?

Mauricio Gutierrez

Well, I mean it's definitely material. It's difficult to say what is the ultimate impact, because I think the variables are still being flushed out. But the three main changes was the recognition of state taxes and the cost of new entry calculation, inter-connection costs and then the energy offsets. So when you put those three together, you basically have higher cost of new entry, which will push capacity prices for both New York City and the whole state. This will benefit our New York portfolio, but at this point I can't give you the specific mind into it.

Operator

And the next question will come from the line of Anthony Crowdell, Jefferies.

Anthony Crowdell - Jefferies & Co

Just a quick question on the, I guess, the cold stub that hit Texas earlier this month. And it seem like there wasn't much of an impact on the generation side, but was there any impact to the margins that Reliant expected or anything on the quarter?

Jason Few

This is Jason. From the retail side, we actually, faired fairly well through this event. I mean, our hedging strategy and risk policies served as well during the event. We did not see material impact to our business.

Operator

In interest of time, we have time for two more callers. And the next question will come from the line of Charles Fishman, Pritchard Capital Partners.

Charles Fishman - Pritchard Capital Partners, LLC

Your five-year environmental capital plan, Page 17, I want to make sure I understand this. The $720 million includes your view of what the math might be, which is less than worst-case, number one. And number two is there are no dollars in the $720 million to address once thru cooling. Is that correct?

David Crane

No, actually, there is some dollars for 316(b) through the installation of extremes. We've been very successful in New York, in Arthur Kill and Huntley and Dunkirk to address this issue. So while it addresses the Mercury and asymmetric controls across all our coal assets, it also addresses the 316(b).

Charles Fishman - Pritchard Capital Partners, LLC

And if we do end up with the worst case math, I mean could this number increase 50%? Or do you have any feel for that?

Mauricio Gutierrez

Well, we actually disclosed that on our last earnings call. And I believe it's about $1 billion -- just shy of $1 billion. If it was the worst case scenario, in terms of unit-specific controls, no averaging. And we just don't believe the EPA will go that route. But the rule is going to come out, the proposal is going to come out in about a month, and I think it's just prudent to wait before we make any changes.

Operator

And there are no more questions in queue at this time.

David Crane

Okay, well, good. Well, thank you all very much, and we look forward to talking to you in the next quarter. Thank you, operator.

Operator

And ladies and gentlemen, this concludes today's presentation. Thank you very much for your participation. You may now disconnect, and have a great day.

Executives

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

Christian Schade - Chief Financial Officer and Executive Vice President

Mauricio Gutierrez - Chief Operating Officer and Executive Vice President

Nahla Azmy - Vice President of Investor Relations

Jason Few - SVP of Mass Markets and Operations, Reliant Energy, Inc.

Analysts

Anthony Crowdell - Jefferies & Co

Dan Eggers - Crédit Suisse AG

Brandon Blossman - Tudor, Pickering, Holt & Co. Securities, Inc.

Charles Fishman - Pritchard Capital Partners, LLC

Jonathan Arnold - Deutsche Bank AG

Ameet Thakkar - BofA Merrill Lynch

Theodore Durbin - Goldman Sachs Group Inc.

James Dobson - Wunderlich Securities Inc.

Brian Chin - Citigroup Inc

NRG Energy (NRG) Q4 2010 Earnings Call February 22, 2011 9:00 AM ET

Operator

Good day, ladies and gentlemen, and welcome to the Fourth Quarter and Full Year 2010 NRG Energy Earnings Conference Call. My name is Deanna, and I'll be your operator for today. [Operator Instructions] And I would now like to turn the call over to your host for today, Ms. Nahla Azmy, Senior Vice President of Investor Relations. Please proceed.

Nahla Azmy - Vice President of Investor Relations

Thank you, Deanna. Good morning, and welcome to our Fourth Quarter and Full Year 2010 Earnings Call.

This call is being broadcast live over the phone and from our website at www.nrgenergy.com. You can access the call presentation and press release through a link on the Investor Relations page of our website. A replay of the call will also be available on our website. This call, including the formal presentation and the question-and-answer session, will be limited to one hour. In the interest of time, we ask that you please limit yourself to one question with just one follow-up.

And now for the obligatory Safe Harbor statement. During the course of this morning's presentation, management will reiterate forward-looking statements made in today's press release regarding future events and financial performance. These forward-looking statements are subject to material risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. We caution you to consider the important risk factors contained in our press release and other filings with the SEC that could cause actual results to differ materially from those in the forward-looking statements in the press release and this conference call.

In addition, please note that the date of this conference call is February 22, 2011, and any forward-looking statements that we make today are based on assumptions that we believe to be reasonable as of this date. We undertake no obligation to update these statements as the result of future events except as required by law.

During this morning's call, we will refer to both GAAP and non-GAAP financial measures of the company's operating financial results. For complete information regarding our non-GAAP financial information, the most directly comparable GAAP measures and a quantitative reconciliation of those figures, please refer to today's press release and this presentation.

And now with that, I'd like to turn the call over to David Crane, NRG's President and Chief Executive Officer.

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

Thank you, Nahla, and good morning, everyone, and welcome to our year-end 2010 earnings call. Today, with me, and participating in the presentation is Mauricio Gutierrez, the company's Chief Operating Officer; and Chris Schade, the company's Chief Financial Officer. Also with me today and available to answer questions are Jason Few, who runs NRG's retail company, Reliant; and Chris Moser, who runs the commercial operations function for this company.

So without further ado, to begin -- so ladies and gentlemen, current and perspective shareholders of NRG, as we speak today, it's now been 32 months since natural gas prices began their relentless fall and the economy at large entered into a great recession, the likes of which, I'm sure none of us wish to experience again in our lifetimes, yet the financial performance of NRG during this period has been superb. And that financial performance has been built on the foundation of an equally exceptional operating performance across all phases of our operations and across all our regions.

In 2010, the second full year of the great recession, our financial performance surpassed all previous years of company results, save for fiscal year 2009, which was of course the first year of the great recession, a year in which we performed spectacularly, achieving both record financial performance and the acquisition of Reliant.

While I am, for the most part, extremely pleased with both the company's financial and its operating performance during 2010, I am acutely mindful of the fact that NRG shareholders did not see any of the benefits of our exceptional performance and share price appreciation during that year. As a management team, we recognize that we have a long way to go in presenting NRG's present value and future potential to the market.

In this presentation and in subsequent presentations that Mauricio, Chris and I will be making during the spring Investor Relations season, we intend to make a concerted effort to explain the NRG value proposition. From the competitive strength of our core businesses, even in a low commodity price environment, to the meaningful and measurable value of our growth opportunities, as well as our effective risk mitigation in areas which we believe to be of concern to the investment community.

So starting with 2010, as summarized on Slide 3, the company continued to generate a very high level of EBITDA in excess of $2.5 billion and also throw off a substantial amount of free cash flow. Indeed, in regard to what should perhaps be the most important metric to shareholders, free cash flow yield, our free cash flow yield for 2010 was a robust 29%, making our seven-year average exceed 23%. And in response to some people who said that we should measure free cash flow for these purposes after both maintenance and environmental CapEx, we have done it in that way but before growth CapEx.

A substantial amount of that free cash flow yield was redeployed back to stakeholders in the form of debt repayment and through our 2010 share buyback program and also into various growth initiatives, which we'll discuss in a minute. But over $650 million of excess free cash flow was returned as cash into the company's coffers, with the result being that our liquidity position at the end of 2010, $4.3 billion of total liquidity with $3 billion of cash on hand, is stronger than it has ever been.

It has always been my position that next to safety, the most important thing that we do as executive management at NRG is capital allocation, and given the amount that we are investing on an annual basis and the record amount that we currently have available either to invest in growth or to return to our equity and debt stakeholders, capital allocation has never been more important than it is now. As such, I'm going to focus the greater part of my remaining remarks on capital, which we expect to invest in our growth initiatives in the months and years to come. Chris will focus a good deal of his comments on capital to be returned to stakeholders.

In terms of the allocation of capital to our growth initiatives, it's important to start with the obvious point that we want to invest the company's capital in assets and initiatives that not only are likely to yield a return significantly in excess of our risk-adjusted weighted average cost of capital, but also in businesses and initiatives which advance the company's strategy.

As depicted on Slide 4, the company's long-term strategy for some time has been twin-tracked. First, to strengthen and enhance our generation to retail business in our core markets through superior operating performance, continued implementation of our first-lean-enabled, long-term hedging program and pursuit of both select acquisitions and the repowering of our older facilities with advantage locations inside load pockets in our core markets. This comply of our strategy which we have pursued with relentless consistency and a high degree of effectiveness for the past five years was joined a couple years ago with a supplemental strategy that is overtly green and designed to take advantage of the societal trend towards sustainability.

This sustainability trend is, in our opinion, about to accelerate as a result of the emergence of various consumer-oriented disruptive technologies, which will make green energy at the consumer level the focal point of sustainability. We made considerable progress on both strategic fronts during 2010, with substantial advances across every facet of our sustainability initiative.

From our rollout of our eVgo network in Houston, which is centered around an innovative fueling package in approach to electric vehicle infrastructure that is already being replicated in other locations through the smart meter e-Sense applications now being sold by Reliant in quantity, to our unique approach to CCS/EOR being funded in collaboration with the DOE at our Parish facility in Texas. All of these initiatives are exciting and off to a good start. All will, I am confident, return considerable value to NRG to shareholders in the medium term.

You will hear more about these initiatives in the future but not today, because today, consistent with my theme, I want to concentrate my comments on the growth initiatives which are more immediate and which are key priorities for deployment of your investment capital during 2011. This is shown on Slide 6.

By way of background, in 2010, we committed substantial growth capital in four general areas: Zero carbon renewables, with an emphasis on solar; new advanced nuclear development; conventional gas-fired acquisitions and repowerings; and green retail acquisitions in the form of Green Mountain Energy. All four are likely to be areas of additional capital expenditure in 2011 but with very different investment profiles from 2010.

First, we expect an acceleration and significant expansion in our equity capital invested in high-growth, high-return solar projects. At the greater part of our utility scale, solar portfolio should achieve financial close and enter the construction phase during 2011.

Second, investment in conventional generation assets should be relatively flat year-on-year, as spending on GenConn and Cottonwood should give way to spending on El Segundo, but conventional CapEx could increase depending on our development success at Astoria, Saguaro or Encina and also, whether we find any strategic assets that can be acquired at value.

Third, capital invested in green retail should drop precipitously as obviously the big expenditure in this area in 2010 with the acquisition of Green Mountain. The amount of capital that we will be investing in and around Green Mountains business in 2011 or to expand into new geographic markets, bigger customers segments and new complimentary green product offerings is fairly minimal.

And finally, and similarly and perhaps, contrary to popular investor belief, even if the STP nuclear development project stays on course, the development capital projected to be required of NRG in 2011 will be far less than half of what we invested in 2010 and will be a mere fraction of what we will be investing in solar projects and other capital allocation alternatives.

So this is a lot to digest, so let's go through a little bit more slowly, starting on Slide 7 with Green Mountain. Four months ago, we paid $357 million for a business that we expect to contribute $70 million, $80 million of EBITDA in 2011, plus, we expect Green Mountain to continue to deliver on a 20-plus percent compound annual growth rate trajectory that they have delivered for the past decade. But we didn't acquire Green Mountain just to continue with business as usual. We wanted to take advantage, and we wanted them to take advantage of what we believe are very substantial synergies between Green Mountain and NRG.

Essentially, we want Green Mountain to accelerate the depth and breadth of their growth in close cooperation with us on the same path that they were following on their own, which means expansion into a high retail price Northeast markets, where they start with a natural green-leaning constituency, also, expansion into the larger Commercial segment of the C&I market than they have previously sought to access. And finally, expansion of their value-added product offerings to include distributed green generation.

It's early days yet, but on at least the first two of these, they are already beginning to bear fruit. Green Mountain has established a small but fast-growing footprint in New York Zone J, and in terms of larger C&I customers, they have won landmark business like the Empire State Building. We expect to be reporting on these and many more successes from and with Green Mountain as the year progresses.

Turning to conventional generation on Slide 8. 2010 was an uneven year, with the successful acquisition of Cottonwood and the repowering at Devon and Middletown, balanced by the missed opportunities surrounding Dynegy's California asset. Cottonwood and Devon have been smoothly integrated into our South Central and NEPOOL lineups respectively, and we are very pleased with the results today.

Looking forward to 2011, we're very focused on the successful repowering of El Segundo, an advantage which we hope to derive from having a modern, fast-start, low-heat rate, combined-cycle plant inside the Los Angeles basin load pocket. Beyond El Segundo, we hope to make progress on similar repowering efforts at Astoria in New York City and Encina in San Diego County. Beyond our own Repowering pipeline, the capital we deploy in the acquisition of conventional power plants, obviously, will depend on market conditions and asset availability in our core regions.

While the acquisition market is lumpy, generalities are difficult and predictions are often proved wrong, the optimism I once held at the first half of 2011 would be a buyer's market for CCGTs in the United States has largely dissipated. I see no sign of a flood of assets on the market and the combined cycle of transactions which have been announced recently have been priced at levels significantly above what we could justify to ourselves or explain to our shareholders.

With respect to our nuclear project, while important steps forward have occurred in several areas since our last earnings call, very little of it can be seen with the naked eye. As before, really all critical aspects of the STP 3 & 4 project run off of our receipt of an acceptable conditional loan guarantee from the government. Certainly, it is a challenge for us to complete meaningful discussions about PPAs with potential off-takers, while the loan guarantee application remains pending.

So our exit ramp analysis, which is set forth on Slide 9, remains largely unchanged from the previous quarter. Likewise, our viewpoint with respect to NRG's continued participation in the project remains at the most challenging of these hurdles, which is the long-term off-take requirement, effectively needs to be addressed no later than the third quarter of 2011 before the project enters the substantial pre-construction phase.

As such, we reiterate the view which is clearly articulated in both our 10-K and in today's earnings release, that NRG will be in a position by late this summer to make a final decision on our continued financial participation in this project. At that point, the market should have substantially greater clarity about the prospects for this project and NRG's role in it.

While we understand that there is skepticism amongst some investors that the project can go forward in the current low gas price environment, we nonetheless, believe it might be helpful to you for us to outline as shown on Slide 10 the future capital commitment of NRG in respect to this project, should it stay on track, with NRG continuing to support it financially.

The overall message is that due to a combination of first, the very substantial sum that NRG has previously committed to the project development, particularly during the first half of 2010 after the settlement with CPS. Second, taking into account our expectation of an optimal hold amount in the project for NRG of approximately 40%, which is down from the 67% that we will own if and when TEPCO invests in a project post-loan guarantee award. And third, due to the value ascribed to NRG for its contribution of the site, NRG's cash commitment to the project going forward is less than what otherwise would be suggested by our projected ownership level.

In summary, should the project proceed to financial closing, the total cash commitment for NRG at our 40% hold level should be something just short of $800 million in aggregate, including cash invested to date. Beyond that, we are likely to have an LC commitment to a standby equity crossover line facility that will be fixed. And while that number has not yet been finally fixed, you should be thinking in the range of a few hundred million dollars maximum.

In exchange for this size investment in STP 3 & 4, we expect cash flow from dividends and tax benefits in the range of $500 million a year for the first several years of operations. Obviously, this is a very attractive return but one which we believe is well just justified given the extraordinary challenges of the undertaking.

Now pulling it back from where we hope the project will be in 2016 or 2017 to where we are here in the first quarter of 2011, you should be focused on what happens after announcements of acceptance of the loan guarantee. As the loan guarantee acceptance naturally will trigger certain funding obligations from our partners, NRG's share of cash development spent for the remainder of the development phase should approximate $50 million for all of 2011 and half that for 2012.

While our perspective 2011, 2012 development standard is perhaps substantially less than many in the market were anticipating, it remains a lot of money to us, and we're taking very seriously our commitment to retain our financial discipline around this project and prevent exposure of our balance sheet beyond the specific commitments that I've outlined in this presentation.

Now turning to Slide 11, last but certainly not least, there is the solar pipeline. I've said many times, and I'll repeat here, that in my 20 years in this business, I had never seen investment opportunities in this sector that offer more attractive combination of high returns, low construction risks, long-term PPAs and repeatable business opportunities than the utility-sized solar projects that we currently have in our advanced development portfolio.

As such, we intend to do as much of this business as we can get our hands on, with the result being that by the end of this year, we may well have a total initial equity investment in our solar portfolio that exceeds the total amount that we may ever invest in STP 3 & 4 at very attractive near-term returns. The limiting item for us in terms of these solar investments is our ability on our own to make optimal use of the considerable tax benefits which will be generated by these projects. This is a topic that Chris Schade will discuss in a few minutes.

What I will end by saying is that this extraordinary pipeline of utility-sized solar projects, which our colleagues at NRG Solar have managed to develop or acquire, provides us with a truly unique opportunity to develop over the next few years a solar portfolio of true scale and significant benefit, even in the context of the larger portfolio of NRG.

Ultimately, however, we fully recognize that the current generation of utility-sized solar and wind projects in the United States is largely enabled by favorable government policies and financial assistance. It seems likely that much of that special assistance is going to be phased out over the next few years, leaving renewable technologies to fend for themselves in the open market.

We do not believe that this will be the end of the flourishing market for solar generation. We do believe it will lead to a stronger and more accelerated transition from an industry that is currently biased towards utility-sized solar plants to one that's focused more on distributed and even residential solar solutions on rooftops and in parking lots.

We are already planning for this transition now within NRG, so that any potential decline in either the availability of utility-sized solar projects or in the attractiveness of the returns being realized on these projects, will be exceeded in aggregate by the increase in the business we are doing on smaller distributed and residential solar projects through our Green Mountain and even our Reliant retail sales channel.

With that, I'll turn it over to Mauricio.

Mauricio Gutierrez - Chief Operating Officer and Executive Vice President

Thank you, David, and good morning, everyone. NRG continued its strong operating and commercial performance during the fourth quarter, making 2010 one of NRG's best years. Slide 13 highlights a few of the key accomplishments achieved in 2010.

Starting with safety, we're particularly pleased with our record performance this year. Our OSHA recordable rate improved 26% over 2009. Our top performance remained strong with 90% availability of our baseload fleet, just shy of our 2009 level. This performance was achieved despite a forced outage event on our STP nuclear plant in November, which I will cover in more detail in the next slide.

On the environmental front, we delivered our second best year, and our FORNRG program far exceeded our 2010 goal. As I mentioned to you on our last call, controlling our cost is a priority, given the challenging economic environment our industry is facing.

Our Commercial Operations Group increased our hedge levels in 2011 and continues to look for opportunities to catch the odd years of favorable prices. We successfully transitioned to the Nodal Market in ERCOT and began integrating Green Mountain Energy and the Cottonwood combined cycle plant into our portfolio.

With respect to our projects under construction, the Indian River Unit 4 environmental back-end control project continues to be on track and on budget to be operational by January 2012. Our Middletown project in Connecticut received all major equipments in the fourth quarter and continues to be on schedule for operation this summer. Finally, the El Segundo Energy Center completed aboveground demolition of two existing units and secured major equipment orders. El Segundo is on track to be operational by the summer of 2013.

Turning to our plant performance metrics on Slide 14. Safety continues to be our number one priority. We are very proud to report that we achieved top decile in the industry, making 2010 our best OSHA recordable year. We have 25 sites with no injuries and nine sites certified or recertified as OSHA VPP Star worksites.

Net generation decreased by 6% in the fourth quarter due to mild weather across Texas and a 22-day on-plan outage at STP Unit 2 during the month of November. The forced outage event was the result of a breaker failure during routine testing and was extended to repair a reactor coolant pump seal. In order to prevent recurrence, similar electric components were checked in both units. Unit 2 has operated without any issues since it was brought back to service on November 26.

For the full year, net generation was flat from 2009 levels. Increased generation in the Northeast and South Central regions driven by the strong summer weather and the addition of Cottonwood, were offset by lower generation in California and Texas.

For 2010, our coal fleet availability finished the year above the sub-quarter performance level for the industry. WA Parish led the fleet with 92.6% availability factor, and Limestone had the best reliability for the year, with a 1.6% forced outage rate.

Our FORNRG 2.0 program exceeded the 2010 goal by $49 million, and it is on track to achieve our goal of $150 million by 2011, one year earlier than planned. Savings were achieved through a combination of reliability, capacity and efficiency improvements at generating assets and cost savings across our corporate and regional groups.

Turning to our retail operations on Slide 15, we closed out the year with another strong quarter. Volumes and margins were consistent with our forecast, while Operations delivered better-than-expected asset management and lower operational costs.

The Mass segment continues to drive segment improvement in net customer attrition with a 57% reduction in the fourth quarter versus 2009. This result was driven by marketing, sales and introduction of innovative products to meet our customer needs.

In 2010, we led Texas in innovation, enrolling over 175,000 customers on our Reliant e-Sense product and services that utilize smart grid technology. We also introduced new and unique offers like carbon-state [ph] and home protection products, adding not only incremental EBITDA but increased customer stickiness.

We continue to maintain the lowest PUC customer complaint rate while balancing customer counterpricing. Throughout 2010, we aligned to successfully demonstrate that we have stabilized customer attrition and expect to achieve zero net attrition in 2011.

In the C&I segment, both renewal and new deal win rates continue to improve. We have expanded our business in several Northeast states where we can leverage existing energy assets and increase product offerings to include products such as backlog generation. These provides a solid platform to grow our business in 2011.

Business continues to show some fundamentals as you can see on Slide 16. Weather-normalized demand grew by 2% year-on-year and ERCOT set a new winter peak low of 57 kilowatts in February, an increase of almost 2.5% from the previous record. I'd like to take this opportunity to address the events in Texas on February 2.

The men and women of NRG Texas worked very hard to help meet the high demand for electricity due to the extreme cold conditions, increasing our generation by more than 60% from the previous day. Although we had some operational issues, of the approximately 9,500 megawatts of power we had available in Texas during the low-shed event, we maintained between 97% and 91% of that capacity online. I want to thank all our employees in Texas for their dedication and extraordinary efforts during these events.

Now moving on to reserve volumes in ERCOT, we see a positive feature of our generation portfolio with reserved margins tightening faster than expected. This is to some extent reflected in the forward heat rates, as you can see on the chart on the lower right-hand quarter. We believe this trend will continue, given the robust growth and the expectation that asset retirement will outpace new builds. We have not seen as much coal-to-gas switching in Texas as we have in the Northeast and Southeast regions. In fact, cash generation was down year-on-year due to increases in new coal and wind generation in Texas.

In the Northeast, the back-end market continues to make some news. In New York, the recent FERC order to increase cost of new entry should provide a boost to capacity prices in New York City and rest of state, benefiting our New York portfolio. In PJM, prices remain uncertain until more clarity is given around the minimum offer price rule, the subsidized generation in New Jersey and Maryland and review demand outlook.

Moving on to Slide 17, you can see our detailed plan to control air emissions for each of our coal plants. As stated in our last earnings call, our plan is to invest approximately $720 million through 2015 in environmental projects tailored to comply with future regulations.

Just to remind everyone, the proposed CAIR rule does not require additional capital for compliance. The HAP MACT proposed rule should be released in mid-March, and as you can see in the table, our plant considers mercury controls on all our coal units.

Intake modifications and repowering are expected to meet once for cooling requirements. We only have dry fly ash disposals at our all coal facilities. And finally, in most of our facilities, we burn low sulfur, low chlorine PRB coal.

Moving on to our hedge profile and commodity sensitivities on Slide 18. Our baseload portfolio is now 100% hedged in 2011 and 50% hedged in 2012, providing the protection in the short term where gas prices continue to be weaker given the oversupply situation. Beyond 2012, we choose to remain significantly open.

After two years of low gas prices, we believe the downside risk is limited. Our combination of incremental demand from the power sector, particularly in light of possible coal plant retirements, some signs of the interest rate by producers, indication that drilling to home acreage may be ending, and a move from dry to wet gas production will provide better opportunities to catch our baseload portfolio in the future.

With respect to retail, we have increased our pipe load to 66% in 2011 from 57% in the third quarter. We continue to match as much generation load as possible to start maximum synergies between our retail and wholesale portfolios.

Our power and coal hedges continue to be well managed in 2011 and 2012. Given the shape of the coal curve and steep contango, we have not added any additional occasions since the last quarter. We also remain well hedged in terms of coal transportation now for some time.

Our sensitivity to commodity prices is agreeable for 2011, with 2012 to 2015 largely unchanged from last quarter. Let me remind you that this sensitivity is around our baseload portfolio. Interest expense, our portfolio is well-positioned to benefit, particularly, in the Texas and South Central regions.

With that, I will turn it over to Chris who will discuss our financial results.

Christian Schade - Chief Financial Officer and Executive Vice President

Thank you, Mauricio, and good morning. Beginning with the financial summary on Slide 20, full-year 2010 adjusted EBITDA was $2.514 billion, just shy of the record 2009 adjusted EBITDA of $2.618 billion and within our previously stated guidance of $2.5 billion to $2.55 billion. As a result of our continued strong operating performance, adjusted cash flow from operations for 2010 was robust at $1.76 billion.

The company's liquidity position at year end, excluding funds deposited by counterparties, stood at nearly $4.3 billion, a $458 million increase from December 31, 2009, liquidity of approximately $3.8 billion. Our cash balance at year end 2010 available for both working capital as well as our 2011 capital allocation program was approximately $2.9 billion.

Now turning to a summary of our 2011 guidance in Capital Allocation Plan. First, we reaffirmed the preliminary 2011 EBITDA guidance range of $1.75 billion to $1.95 billion. Second, and as part of our 2011 capital allocation program, we are planning to repurchase $180 million of common stock, and complete $240 million of term loan debt repayments and $39 million for additional facilities, all of which is consistent with NRG's commitment to return excess capital to its stakeholders. Third, in 2011, in addition to the amount deferred from 2010 as a result of extending the cash grant availability, we are currently planning to commit an additional $640 million of net investment to advance our Repowering and renewable development program, particularly, utility-scale solar.

Now turning to a more detailed review of 2010 adjusted EBITDA result from Slide 21. The company reported near record results of $2.514 billion adjusted EBITDA, only $104 million lower than the 2009 adjusted EBITDA of $2.618 billion. These results were achieved despite the decline in forward prices across all of our regions and clearly benefited from our wholesale generation hedging program and the continued strong performance of Reliant Energy.

During the year, Reliant Energy contributed $711 million of adjusted EBITDA. Comparatively, these results are lower by $158 million from 2009 as we overlined for only eight months of that year. The year-on-year decline was driven by an 18% decline in Mass margins, which were the direct result of price reductions enacted following the acquisition, as well as lower margins on customer renewals and new customer acquisitions reflective of the competitive market. All told, for 2010, Reliant saw net customer attrition rates improve to 0.4% from 0.7% in 2009 with total customers at year end steady at 1.5 million.

The wholesale business meanwhile generated $1.8 billion in adjusted EBITDA, $173 million lower as compared to a record 2009 EBITDA of $1.976 billion. The comparative year-to-date decline is largely explained by a 32% drop in baseload hedge prices in the Northeast, as well as lower margins in Texas, caused by a 60% increase in fuel costs, due largely to higher coal transportation costs at our WA Parish facility. These results were partially offset by an increase in adjusted EBITDA of $28 million from the South Central region due to increases in generation and contracted sales.

Also increasing adjusted EBITDA were our newly acquired assets, including Green Mountain Energy, Cottonwood, Northwind Phoenix, South Trent Wind Farm, as well as the full year of operations from the Blythe solar project.

For the fourth quarter, the company reported adjusted EBITDA results of $444 million, a $45 million decline versus 2009. Reliant Energy contributed $117 million of adjusted EBITDA compared to $104 million for the fourth quarter of 2009. Reliant's quarterly results were favorable $13 million driven by an improvement in operating costs primarily due to better customer payment habits as related to a decrease in bad debt expense.

In the fourth quarter of 2010, our Wholesale Generation business contributed $327 million of adjusted EBITDA, a $58 million decline compared to fourth quarter '09. The change in results can largely be attributed to the following items: In the Northeast region, 35% lower hedge prices and a 25% decrease in generation resulting in a $57 million decline in energy margins quarter-over-quarter. The decrease in generation was largely a result of coal-to-natural gas switching and offsetting this decline in energy margins were favorable year-on-year operating and maintenance expenses of $13 million.

In Texas, the 10% decline in generation at the Limestone and WA Parish facilities due to lower power prices and reduced demand led to a 6% decline in overall generation for the region. Offsetting this decline were favorable year-on-year operating expenses of $17 million that included gain on land sales of $6 million in 2010.

Now turning to Slide 22. As I mentioned a moment ago, total liquidity at year-end 2010 excluding funds deposited by hedged counterparts remained strong at nearly $4.252 billion. Total cash stood at $2.959 billion, an increase of $653 million as compared to the 2009 year-end cash balance of $2.3 billion. The drivers of the cash increase included adjusted cash from operations of $1.76 billion and debt proceeds of $1.317 billion.

These increases were offset by several items: First, five completed acquisitions totaling about $1 billion, which included $507 million for Cottonwood generation station, $357 million for Green Mountain, $100 million for Northwind Phoenix, $32 million for South Trent Wind Farm and for the U.S. solar portfolio, 720 megawatts of development projects in nine states in California and Arizona. Second, debt and fee payments totaling $813 million, including Term Loan B payments of $453 million and a repayment of a common stock fund or CSF of $190 million.

And third, capital expenditures excluding NINA of $445 million, including $199 million of maintenance, $184 million of environmental, primarily related to the Indian River Air Quality Control System project, and $62 million of growth investments. For the full year, we made cash contributions to NINA totaling $170 million primarily in the first half of 2010. And finally, we completed share repurchases of 8.5 million shares, totaling $180 million.

Now turning to 2011 guidance on Slide 23. Our EBITDA guidance remains unchanged from our November 24 range of $1.75 billion to $1.95 billion. Included in this guidance range are wholesale expectations of $1.2 billion to $1.3 billion, retail expectations of $480 million to $570 million, and Green Mountain of $70 million to $80 million. As Mauricio discussed earlier, we are about 100% hedged on our baseload generation for 2011 and are thus comfortable with our forecasted results.

As we look forward to our Wholesale business in 2012, we are currently in excess 50% hedged with a higher average price in 2011 as indicated in our SEC filings. Due to this position and based on the current forward curves, we expect flat to marginally lower year-on-year wholesale results in 2012 from 2011. These results will be supplemented with adjusted EBITDA of $85 million from our repowering and solar investments in 2012 that are not subject to market fluctuations.

For our retail business in 2011, our current expectations, assuming normal weather, are an EBITDA range of $480 million to $570 million, the decrease in 2011 guidance compared to current 2010 results is largely explained by lower unit margins in Reliant's Mass business. Reliant's C&I business margins are also expected to decline slightly, but be directly offset by higher terawatt-hours served, reflecting our continued dedication to this growing client base in both Texas and PJM.

Finally, we expect Green Mountain Energy to contribute $70 million to $80 million of EBITDA. We are very excited about enhancing the growth prospects for our Green Energy Retail business during the process of integrating the business with our growing renewables portfolio to enhance these future growth prospects.

During our Q3 earnings call, we discussed the 2011 free cash flow guidance of $425 million to $625 million, and we now currently anticipate free cash flow for 2011 to be in a range of $150 million to $350 million. The difference in guidance is largely explained by certain timing of solar projects, due to Congress extending the availability of cash grants for renewable projects through 2011. NRG postponed its large investments in solar projects from 2010 to 2011, resulting in $267 million of solar expenditures pushed into '11 and relates primarily to our Agua Caliente, Ivanpah and CVSR solar projects.

As we often like to emphasize, we are in a strong cash flow position based on Friday's closing stock price of $20.89 and our affirmed outlook. Free cash flow before growth yield currently stands at between 16% to 20%, or $3.36 to $4.17 per share.

Slide 24 shows the company's projected 2011 year-end cash position which we project to be about $2.5 billion. Beginning with the portion of the Capital Allocation Plan that includes share repurchases and debt repayments in 2011, the company intends to repurchase $180 million of common stock, which is within the constraint of the restricted payments basket; repay $240 million of debt related to our Term Loan B agreement; and approximately $39 million in other facilities. It's important to note that the company made a Term Loan B prepayment in November that totaled $200 million.

And finally, complete $907 million of capital allocation in the following projects: $50 million in NINA; $219 million for other Repowering investments including El Segundo, GenConn Middletown, eVgo, Texas Reliability and Princeton Hospital and $638 million for solar projects, net of cash grant proceeds, and including the $267 million of deferred payments from 2010.

During the third quarter conference call, I also mentioned that we usually maintain a minimum cash balance of $700 million largely for working capital margin requirements, the timing of cash payments, of interests, property taxes, as well as equity for projects we have under construction throughout the year. Thus, for 2011, we estimate a balance of just over $1.8 billion to allocate between perhaps additional share repurchases, contingent on the restricted payments basket expansion, further investments of high-growth opportunities and continued opportunistic management of our debt structure.

On January 11, the company issued $1.2 billion of 7 5/8 senior notes due 2018 and announced the simultaneous cash tender for $1.2 billion of the outstanding 7 1/4 senior notes due 2014. As of January 25, nearly 945 million bonds have tendered, and the remaining 250 million will be redeemed by the end of February pursuant to the embedded coal price. As a result, we've improved our debt maturity profile, all of our public debt matures after 2016, and replace the restricted covenant package with one permitting greater efficiency and flexibility to return value to all NRG stakeholders.

On a go forward basis, we will continue to moderately embed in calls in the 2016 and '17 maturities and be opportunistic about replacing those bonds with less restricted covenant packages, similarly to how we handle the 2014 maturity.

Looking at NRG's combined Repowering and Solar portfolio and our EBITDA contribution on Slide 25, you can clearly see the benefit of the program with nearly $550 million of recurring contribution by 2015.

During the fourth quarter, our El Segundo Repowering project received prior approval from the California Public Utilities Commission for a ten-year Power Purchase Agreement with Southern California Edison. Commercial operation's expected in the summer of 2013.

Our large utility-scale solar projects will also begin to reach commercial operations between the summer of '13 and the first quarter of 2014, and these projects collectively are driving this EBITDA growth. These solar investments are attractive for their high-teens returns, very low construction risks and offtake agreement of 20-plus years with highly rated counterparties. We will continue to provide updates on the progress of these projects as they move into construction and operation.

As we continue to invest and grow our solar portfolio, it's important to highlight a few economic benefits created with these projects. Slide 26 shows how the combination of cash grant, maker's depreciation and strong cash flows from the PPAs for our projects result in a payback for our investments, in some cases by 2014, and retain stable cash flows for the remaining term of the PPAs.

Though we believe there will be a turnaround in commodity markets, we are mindful of our ability to create enough taxable income for us to fully absorb tax benefits created by these solar investments. There is clearly a limit to how much tax efficiency we could absorb in any one year before reducing the total project returns. As such, to both minimize the tax leakage and enhance our returns, in 2011, we will pursue new equity investors for our solar portfolio, who have both the appetite for tax benefits and seek investment to one of the largest utility-scale solar portfolios in the world. New equity investors would not only help to optimize our existing tax position but allow us to continue to invest in future projects with high returns.

We expect to launch this initiative soon and look forward to sharing the progress in the future. Now I'll pass it back to David for final comments.

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

Thank you, Chris, and thank you, Mauricio. And so in conclusion, on Slide 28, we put what we think are some of the value drivers around the investment proposition at NRG. And it starts with the fact that 2 1/2 years into the commodity price down cycle, it appears to us that the end is in sight, the bottom of the trough has been reached, and the only way to go is up. When or how quickly gas prices will recover remains open to conjecture, but the case for rising heat rates in our core market of Texas is clear and compelling. And we've positioned our portfolio and our hedge both to benefit from that upturn.

Second, even in a political environment that has turned more conservative in the past year, market mandates for renewable generation and for solar power in particular, remain well supported in both the red and blue states. And the result for us has been a fast-growing portfolio of projects that will contribute substantially to shareholder value creation over the short to medium-term.

Finally, there's the inherent value unique amongst our peer group of Wholesale generation combined with the leading retail position. While we have executed to such great success in Texas, together with Reliant, we are now in position to replicate with Green Mountain in the fast-growing green and retail energy sector. It's a bright future indeed, and for all of us at NRG, we'll strive to realize its vantage on behalf of the shareholders of NRG.

So Deanna, with that, we'd be happy to take some questions.

Question-and-Answer Session

Operator

[Operator Instructions] The first question will come from the line of Daniel Eggers, Crédit Suisse.

Dan Eggers - Crédit Suisse AG

David, I was just trying to marry up some of the comments made about some of the solar investment opportunities. If I look at Slides 25 and 26, the cash investment and then the earnings contribution you guys show there, is that based on the things that are in hand right now, or is there a assumption of the amount of incremental projects who would have to get signed this year to help get to those numbers?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

I think what we're showing, Chris, correct me if I'm wrong, is the Tier 1, which are projects, which in my personal estimation are ones that have a 90-plus percent chance of achieving financial closure.

Christian Schade - Chief Financial Officer and Executive Vice President

Yes, that's actually correct, Dan.

Dan Eggers - Crédit Suisse AG

So these are things that are already in place, and this would be less contribution than what you said in your comments earlier, David, about having equity investment and solar greater than what you do see in South Texas ultimately?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

I'm sorry. Say it again?

Dan Eggers - Crédit Suisse AG

So this earnings contribution represents an investment less than what you think you can get to from the solar perspective based on your comments earlier in the presentation?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

I mean there are more projects behind this portfolio.

Dan Eggers - Crédit Suisse AG

When do you see the opportunity this year to announce off projects? And how would you see this sell down equity go as far as changing the earnings contribution profile from these projects? And how much could you sell down, do you think?

Christian Schade - Chief Financial Officer and Executive Vice President

Well, we're going to get to how much we can sell down as we move through the process. But very clearly, any amount we sell down will sort of be a pro rata reduction in EBITDA. And so depending on how much we do, we'll certainly let you know. But we do believe that the sell down will allow us to provide incremental more equity into other projects we have yet to announce. But what David said, we're on the bubble given the benefits from the government largesse, which we think still exist but perhaps will run out in the next couple years. And those projects will also be assumed as sort of returns consistent with what we've seen to date.

Dan Eggers - Crédit Suisse AG

And I guess one last question just on South Texas. David, if you could maybe just -- we go through the numbers as far as how much cash you expect to throw off in the project, and then to clarify that, contribution's based on kind of the pricing you'd need it to be able to receive in order to earn economic return on that project?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

Well, so you're saying you're -- Dan, you're actually looking forward to 2016 and '17? Yes, I mean, looking at Page 10, I mean, through the first few years, when we've talked about receiving $500 million of cash, that's based on our view on where gas prices go, which is, obviously, some way up from where they are now, sort of into the $6 to $7 range. Having said that, Dan, we've stressed the returns on the nuclear project from an IRR perspective, sort of $4 gas in perpetuity model. And the IRR in the project, it would still be in double digits, but obviously, the higher gas prices, the better we do. But it works, the numbers work even at a $4 gas environment. And the reason that is the case, Dan, is because, obviously, the tax benefits associated with nuclear project, particularly, the production tax credits, meaning that through the first several years of the nuclear project, the economics are more driven actually by the tax benefits than they are by the price of electricity.

Dan Eggers - Crédit Suisse AG

Do you see IRR as working in $4 gas to the equivalent of a mid-30s power price, you would see the plant being economic?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

In a $4 gas, the plant is, yes. I mean, again, it's a low-teen return. I'm not sure that -- it's not the return we're seeking, but it's not a single digit return or a negative return.

Operator

The next question will come from the line of Ameet Thakkar, Bank of America Merrill Lynch.

Ameet Thakkar - BofA Merrill Lynch

Mauricio, you kind of indicated that the path with hedging, despite, I guess, some uptick in heat rates in Texas and you also didn't do much in the way of coal as well. I mean is your expectation that PRB prices should follow gas down? Or are you guys a little bit more neutral on gas at this point?

Mauricio Gutierrez - Chief Operating Officer and Executive Vice President

Well, I mean, if you look at our hedge profile, the next few years, we're pretty well hedged on both sides, so power and coal. We can justify the contango that exists with the coal curve. And given the inventory that we have and the hedge profile, we think that we can weigh to be more opportunistic about when to catch the coal prices. With respect to gas, we continue to see further declines in the front part of the curve, which we've been pretty well insulated. But as I mentioned in my remarks, I mean, I think when you look at 2012 and beyond, and where those price levels are, we see very little downside risk from that. And we think that there are several factors that are converging that could potentially move gas prices, assuming they could be higher than where they are today.

Ameet Thakkar - BofA Merrill Lynch

And then David, real quick on STP. I just want to make sure I understood, I guess, some of your answers to the previous questions. You see returns in kind of the teens area, given the $4 gas for STP?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

Yes, so the returns would be in the teens area in the $4, in perpetuity model. Again, this is based on the idea that we're running a model where there's roughly 1,000 megawatts of power sold by long-term contract, and the rest is taken into the merchant market. So the $4 gas would apply to the 2,000 in the merchant market. And yes, you're right, what it shows is a return in the teens, in that sensitivity. I would also tell you, Ameet, both in response to your question and I should say to Dan, also, we run this with no value associated to the zero-carbon aspect of it, so the price on carbon directly or indirectly would be on top of this.

Ameet Thakkar - BofA Merrill Lynch

And then so is like the 1,000 megawatts of PPA cover, I guess, under that analysis, is that really kind of the goal to kind of continue to move forward and not exit, I guess, exit land for on Slide 9?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

Well, Ameet, almost as a -- I mean, from the beginning, I think that we have said to our investor base that we, at least, would not proceed with the project unless there was a significant amount of long-term offtake associated with the project. And so, roughly 1,000 megawatts has been something we talked about from the beginning. On top of that, Ameet, the conditional loan guarantee, if and when it's announced, it's called a conditional loan guarantee because there are conditions associated with it. And probably the most substantive condition, the condition we would be focused on is that the government would require us to have approximately that same amount of long-term offtake agreement contracted, which was a condition, again that we were happy to agree with the government on since we had said that we wouldn't go forward with it either. So that's why we would be doing that.

Operator

And the next question will come from the line of Ted Durbin, Goldman Sachs.

Theodore Durbin - Goldman Sachs Group Inc.

If I could just ask a little bit about the capital allocation. You're obviously coming out of 2010 here with a high cash balance. I'm just trying to understand a little bit better the allocation of the capital towards the renewables and whatnot, maybe extending that relative to between cash to stakeholders. Could you just talk a little bit more about that?

Christian Schade - Chief Financial Officer and Executive Vice President

As we said, we're committing to a $180 million stock repurchase, and that's within the confines of our restrictive payment basket. We're also going to be making required debt repayments under our term loan program, Term Loan B program. We've also earmarked potential investment in our solar projects, and these are projects which we had -- some of which we're announced late last year and early this year and would be subject to the cash grant program under the government. So all of those projects and repowering projects from El Segundo and GenConn Middletown. But those are the programs at least that were part of the capital allocation program for this year. That's what we've announced. We have $1.8 billion after which we would be able to deploy into additional repowering should they be available and new solar projects that we see on the horizon, as I've said before, all of which offer us the opportunity for very attractive returns.

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

And just to add, Ted, I think you phrased the question almost as if it was an either/or, and I guess that may be a little different. I mean, given the company's free cash flow generation and the cash we have on hand, we haven't really seen it as an either/or. In terms of returning capital to shareholders through the share buyback, we do as much as we can under the restrictive payment basket. Over the past years, we've constantly evaluated whether or not we could negotiate a way to have more room to do more, but the expense of doing that has always made that impractical. So from our perspective, it has not been an either/or decision. It's been do both.

Theodore Durbin - Goldman Sachs Group Inc.

Does that cost of getting the ability to do more of a buyback, you're still seeing that as not worth the expense of getting that?

Christian Schade - Chief Financial Officer and Executive Vice President

That's right. We think the expense to negotiate with the bondholders is being punitive. And as I said in the prepared remarks, the approach that we took on the 2014 maturity to wait for the calls to come due than to call away and refinance was we felt unattractive and a cost-beneficial way to do it. We have calls coming up in February for the 2016 maturity which we'll keep an eye on. The 2017 are not yet callable, will be so within a year. The high-yield market remains very attractive from financing perspectives, so we'll continue to look at that closely. But just to further what David said, with the excess cash in addition to the $180 million as we said, we'll certainly consider future stock repurchases if it can fall within the confines of hedging expansion we see in our restrictive payments basket throughout the year as well.

Theodore Durbin - Goldman Sachs Group Inc.

I appreciate the commentary on sort of the assets side. It sounds like you're not seeing the values on the CCGT side that you were before, but you did do the Cottonwood transaction. Are there other holes in your portfolio, where you say, "Geez, we'd really like to add some mid-merit assets whether it's more in South Central or whatnot?" And kind of talk about where you'd like to build up the portfolio.

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

Well, I think the place where we'd like to build up the portfolio, and again, we've been fairly -- well, it took us six years to execute on the idea that we needed a load following plant in South Central. So just because I say this, I don't want you to think any sort of announcement's around the corner, because I'm actually skeptical that we can achieve anything. But we would definitely like to have some more baseload-following capability in PJM, particularly Eastern PJM. Having said that, we don't have any optimism about anything coming available in that footprint that we would find probably at a reasonable price. But we keep our ear to the ground. I would say that has been our single greatest priority second to backing up Big Cajun, which we've now achieved with Cotton.

Operator

And the next question will come from the line of Jonathan Arnold, Deutsche Bank.

Jonathan Arnold - Deutsche Bank AG

My question is, on STP, you believe the option for the second 10%, the TEPCO would take -- had a May expiration date on it, we recall from the original 8-K. But is there a similar date around the base 10% investment that's contingent on the loan guarantee acceptance? Is May a kind of drop-dead date for that whole arrangement with TEPCO?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

I don't believe there's a drop-dead date. And John, Tokyo Electric well understands the pace of development. I don't want to speak to them, but I think their enthusiasm for participating in this project is unchanged from when we announced the deal a year ago. So I don't remember any sense of date, but I have a very high level of confidence that if the loan guarantee comes that Tokyo Electric will participate in the project.

Jonathan Arnold - Deutsche Bank AG

And can you also give us a sense of -- well, obviously, your contribution is relatively small over this '11, '12 period. What would the $25 million in '12 be absent additional sell downs? And maybe some kind of sense of how much is actually being spent on the project itself during this next couple of years.

Christian Schade - Chief Financial Officer and Executive Vice President

Well, what it would be without the sell down, I'll have to get back to you on that. The amount of money that has to be invested towards in order for us to proceed is it's several hundred million dollars. But Jonathan, it's really hard to put it in those terms. Because like a good portion of it is long lead time materials in Japan which are actually funded with the credit facility from Toshiba. So maybe we can break out and provide it to you or do it next quarter. Just the development spend for now, in order for us to proceed against the sources of capital, because it's really not useful if you look at it as one-lump sum, because various things are paid for with different buckets of money.

Jonathan Arnold - Deutsche Bank AG

And if I may just on one other topic, what indications are you getting from DOE on these discussions at a level of hedging through PPAs that would be acceptable to them on the project?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

Well, I think that the condition is very specific. And I think back, it's the same as I answered to Ameet. It's something just less than 1,000 megawatts.

Operator

The next question will come from the line of Jay Dobson, Wunderlich Securities.

James Dobson - Wunderlich Securities Inc.

I was hoping you could give us some insight into the offtake discussions. The local media's covered some interesting transactions, or at least, proposals that you had. So I'm just wondering if you can give us some insight into where things stand and sort of what your level of optimism is currently.

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

It's a good question, and I think what I would say without -- I mean, it's difficult to comment with discussions that are underway. And in fact, normally, we don't comment on it but since as you said, there's been discussions by the public, I guess I should say some things. I would say, first of all, I think there's an openness, a willingness, and interest on several load-serving entities, large load-serving entities in the Texas market to talk about long-term offtake. And I would also say that the events of early February in Texas, where a part of the reason the state had rolling brownouts or even blackouts is because people couldn't get gas to some power plants, I think has reinforced the idea that having fuel diversity in the state is something that load-serving entities want to have. So there's a fairly high level of interest from various parties, but the big qualifier I always put on this question is, right now, as you say, it's really discussions. I mean, the project isn't really real to off-takers until we have a loan guarantee. So I would describe anything that we're doing with any counterparty at this point is being preliminary. And so that's what I would tell you. And based on what we're being told by the camp, their interest level, I'm guardedly optimistic. But mainly, my main attitude towards all this is, let's wait and see what happens when the loan guarantee's announced, because that's when ourselves and our counterparties are going to have to get down to business, and people are going to have to make commitments on both sides. So that's the main thing, and what we're trying to empathize here is that, that phase, and hopefully that phase will begin within the coming weeks, is something that basically needs to be resolved by the summer so that we can all have clarity as within the company and U.S. investors and analysts as to where we stand vis-à-vis this project.

James Dobson - Wunderlich Securities Inc.

As an unrelated follow-up, on the solar side, I'm not sure if this is good for your or for Chris. I assume in addition to selling an equity stake, you'd consider selling a tax equity there, and how do you consider those two alternatives?

<u>Christian Schade</u> - Chief Financial Officer and Executive Vice President

Yes, very much so. I think the equity stake that we are contemplating is tax equity, it's a structuring issue. But we're certainly looking to pass off the tax attributes that are generated from this portfolio to tax equity investors. I think, one thing as a follow-up to a question before is that we'd certainly be looking to sell this equity at a premium. The returns that we're seeing perhaps from these investors are below the expected returns that we see in the high-teens, and so that sort of premium or IRR arbitrage gain will certainly benefit us in having development premium for this. But our goal here both is to bring equity into these projects and also, to lay off some of the tax that perhaps, does not necessarily accrue to NRG.

<u>James Dobson</u> - Wunderlich Securities Inc.

And Chris just a last follow-up, the capacity of the RP basket at year end?

<u>Christian Schade</u> - Chief Financial Officer and Executive Vice President

It was about $160 million. So the $180 million that we announced today will be spread out for a couple of quarters.

Operator

The next question will come from the line of Brandon Blossman, Tudor, Pickering Holt & Co.

<u>Brandon Blossman</u> - Tudor, Pickering, Holt & Co. Securities, Inc.

I guess just a follow-up on the tax equity question, probably for Chris. Just to be clear, is the tax equity partner or sell down required to optimize the tax benefits of the current solar portfolio, or is that something you need to do to increase the size of that portfolio?

<u>Christian Schade</u> - Chief Financial Officer and Executive Vice President

I think it's not necessarily required. I think it benefits the returns of the portfolio and allows us to continue to invest in the space. As David said, we're seeing a lot of opportunities elsewhere, and I think when we start to layer on other utility-sized projects in addition to what we have, there is a limit to the capacity of tax attributes that we can assume. So we think it's important. We're seeing a lot of interest and opportunities to invest in this space by sort of nontraditional investors who want to get green, and so we think it's a big opportunity for us, who are certain taxpayers as well. So it's for us to check a lot of boxes along the way. First and foremost to optimize our tax position in appropriate years, as well as to allow us to continue to invest in the space.

<u>Brandon Blossman</u> - Tudor, Pickering, Holt & Co. Securities, Inc.

And how does that dovetail with STP's tax attributes? Is that far enough out so that there's no overlap here or concerns about maximizing that value?

<u>Christian Schade</u> - Chief Financial Officer and Executive Vice President

It is far enough out that we're not perspiring about the tax attributes that it generates. But certainly, it's a topic that we will address at due time. And also, would speak to our underlying business that we hope and certainly think will grow enough to burn through these NOLs and to continue to generate the taxable asset side in those years. So we're confident of that.

Brandon Blossman - Tudor, Pickering, Holt & Co. Securities, Inc.

And David, as a follow up, not that anyone wants this to happen, but if there is an exit ramp for STP, can you describe what that looks like? Is there a project to be had at some point in the future, given that this is a particularly attractive development project?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

Well, Brandon, I guess, what I would say, on a few fronts. I mean it sort of depends on which exit ramp you're talking about. And I'm just speculating on things which of course, we don't hope to happen. I mean from my perspective, I think if something happens during this year that caused the entire project to go away, we would probably finish the licensing process, which is a small fraction of the overall development spend. But we're so far along with the NRC that to stop it this close to the end would not make sense. But beyond that, would the project go forward? I think it depends on which exit ramp it is. And again, I don't mean to speak for the other partners, because I want to emphasize every NRG investor on the call. We do not have the right to kill the STP 3 & 4 project. We just have the right to stop our own financial contribution to it. But I would say, if the exit ramp is that, actually it turns out that there is no loan guarantee in the offing -- I haven't actually asked this question directly, but I think our partners in Japan -- and we would be aligned that there would be, that the project would stop if there's no hope of a federal loan guarantee. If on the other hand, there was a federal loan guarantee, but we were taking the exit ramp because we were unable to lineup the offtake, I don't know what our partners would do in that circumstance. Maybe they would continue with the project, that would be their prerogative to do. I just know that if we don't have that offtake arrangement, then we will stop funding.

Brandon Blossman - Tudor, Pickering, Holt & Co. Securities, Inc.

And that would be not the 1,000 megawatts, but isn't that predicated on the loan guarantee or the loan guarantee predicated on the 1,000 megawatts?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

It is, but one of the reasons why I don't know -- I don't remember the exact terms, the exact words of the conditional loan guarantee, but I know that we do not have the opportunity at NRG to solve for the offtake arrangement, because I think the condition is offtake agreements with investment grade offtakers. Our Japanese partners who are investment grade would have that opportunity should they so choose to correct that on their own. We don't have that type of power, so that's not a question for us.

Operator

The next question will come from the line of Brian Chin, Citigroup.

Brian Chin - Citigroup Inc

What's the rough range of construction cost estimates in dollar per KW for the solar PV facilities that you are seeing, and also for the solar thermal side?

Christian Schade - Chief Financial Officer and Executive Vice President

The range, well, I think we would say that the range right now is 3,500 to 4,000 per KW, and I don't know, that would be for the PV -- I can't tell you -- the solar thermal would probably be in the same range.

Brian Chin - Citigroup Inc

And then would it be fair to say that $4 sustaining perpetual natural gas price environment that you'd still see solar generating returns in the double digits as well? And is it higher or lower than nuclear?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

Well, we haven't compared them side-by-side. I think it's fair to say that like nuclear, the solar projects, at this point, the economics are very heavily driven by the tax benefits. But beyond that, the real difference between the two is that every solar project we're doing is completely not merchant. It's totally PPA. So I don't think -- in fact, when we talk about taking the company's financial performance and sort of de-linking it to natural gas prices, we put renewables together with retail in parts of our EBITDA stream that are not associated with natural gas prices, because of the fact that all of the economics are derived from long-term PPAs.

Brian Chin - Citigroup Inc

Can you talk just a little bit about from your perspective, what the FERC's order in the New York ISO and the capacity market situation up there? What's changed longer-term, and how much of a positive is that for you guys, or is that even material?

Mauricio Gutierrez - Chief Operating Officer and Executive Vice President

Well, I mean it's definitely material. It's difficult to say what is the ultimate impact, because I think the variables are still being flushed out. But the three main changes was the recognition of state taxes and the cost of new entry calculation, inter-connection costs and then the energy offsets. So when you put those three together, you basically have higher cost of new entry, which will push capacity prices for both New York City and the whole state. This will benefit our New York portfolio, but at this point I can't give you the specific mind into it.

Operator

And the next question will come from the line of Anthony Crowdell, Jefferies.

Anthony Crowdell - Jefferies & Co

Just a quick question on the, I guess, the cold stub that hit Texas earlier this month. And it seem like there wasn't much of an impact on the generation side, but was there any impact to the margins that Reliant expected or anything on the quarter?

Jason Few - SVP of Mass Markets and Operations, Reliant Energy, Inc.

This is Jason. From the retail side, we actually, faired fairly well through this event. I mean, our hedging strategy and risk policies served as well during the event. We did not see material impact to our business.

Operator

In interest of time, we have time for two more callers. And the next question will come from the line of Charles Fishman, Pritchard Capital Partners.

Charles Fishman - Pritchard Capital Partners, LLC

Your five-year environmental capital plan, Page 17, I want to make sure I understand this. The $720 million includes your view of what the math might be, which is less than worst-case, number one. And number two is there are no dollars in the $720 million to address once thru cooling. Is that correct?

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

No, actually, there is some dollars for 316(b) through the installation of extremes. We've been very successful in New York, in Arthur Kill and Huntley and Dunkirk to address this issue. So while it addresses the Mercury and asymmetric controls across all our coal assets, it also addresses the 316(b).

Charles Fishman - Pritchard Capital Partners, LLC

And if we do end up with the worst case math, I mean could this number increase 50%? Or do you have any feel for that?

Mauricio Gutierrez - Chief Operating Officer and Executive Vice President

Well, we actually disclosed that on our last earnings call. And I believe it's about $1 billion -- just shy of $1 billion. If it was the worst case scenario, in terms of unit-specific controls, no averaging. And we just don't believe the EPA will go that route. But the rule is going to come out, the proposal is going to come out in about a month, and I think it's just prudent to wait before we make any changes.

Operator

And there are no more questions in queue at this time.

David Crane - Chief Executive Officer, President, Executive Director and Member of Nuclear Oversight Committee

Okay, well, good. Well, thank you all very much, and we look forward to talking to you in the next quarter. Thank you, operator.

Operator

And ladies and gentlemen, this concludes today's presentation. Thank you very much for your participation. You may now disconnect, and have a great day.

If you have any additional questions about our online transcripts, please contact us at: transcripts@seekingalpha.com. Thank you!

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EXHIBIT
6

Did The Glint Of A Few Million Solar Panels Cause A Military Jet To Crash In California?

infoscape.com/did-the-glint-of-a-few-million-solar-panels-cause-a-military-jet-to-crash-in-california/

On Wednesday, a military jet crashed into a residential neighborhood in the desert city of Imperial, California.

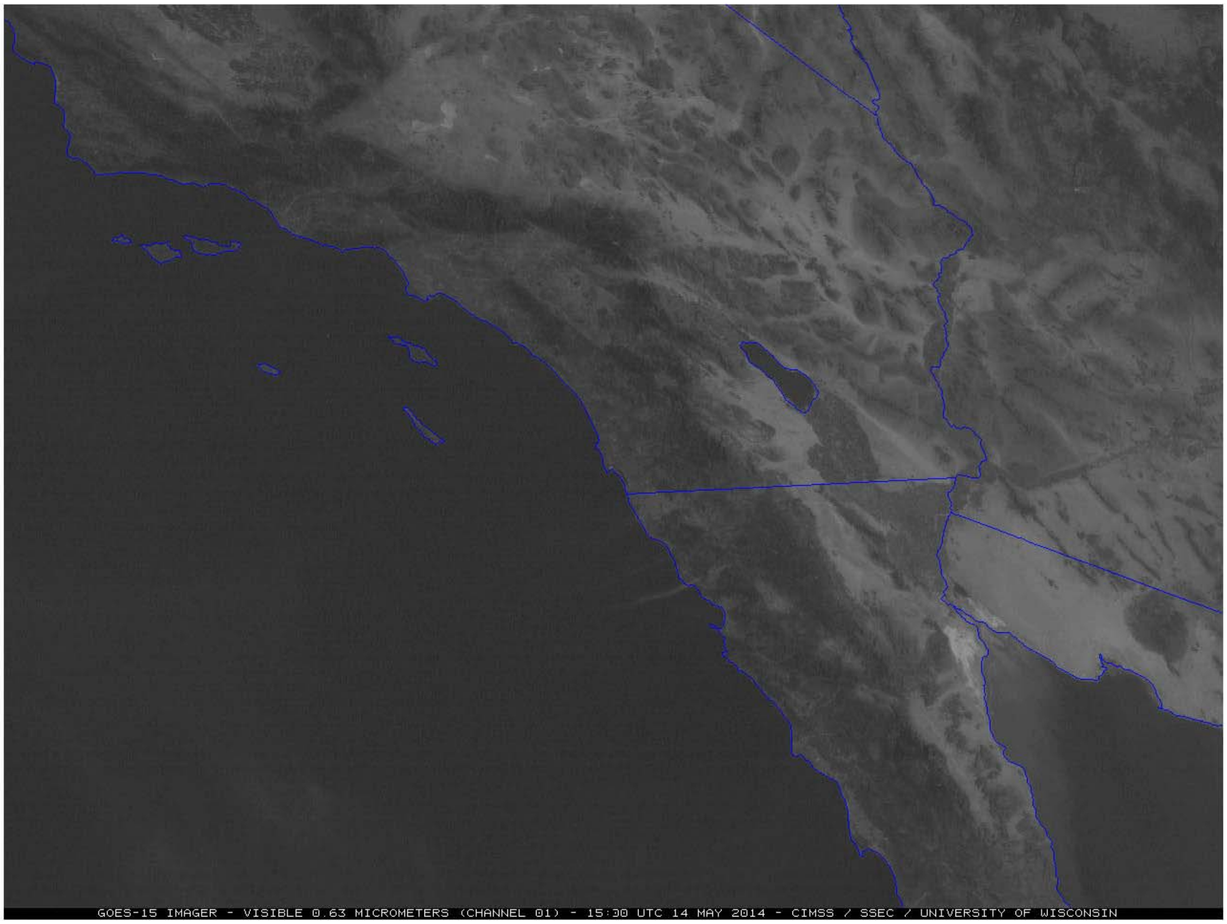
The accident, which involved an AV-8B Harrier aircraft, destroyed three houses, but did not cause any physical injuries.

"The Harrier is among the coolest, most ingenious aircraft ever designed, but the downsides of its design and a long history of failures mean these most recent crashes are hardly surprising," according to a piece by Alex Davies at Wired.

I am inclined to agree, but for very different reasons than those cited by Davies.

Only a few weeks ago, I discovered a series of images taken by satellite that suggested it was more dangerous to fly over parts of southern California than I had previously understood.

The CIMSS Satellite Blog created an animation from the images that showed massive plumes of smoke from California's wildfires streaming into the Pacific Ocean. Near the end of the animation, two clusters of intensely bright pixels appear briefly just north of the California/Baja California border, which CIMSS explained was "a signal of sunlight being reflected off of large solar panel arrays in that area."



McIDAS images of southern California GOES-15 0.63 µm visible channel data – May 14, 2014.

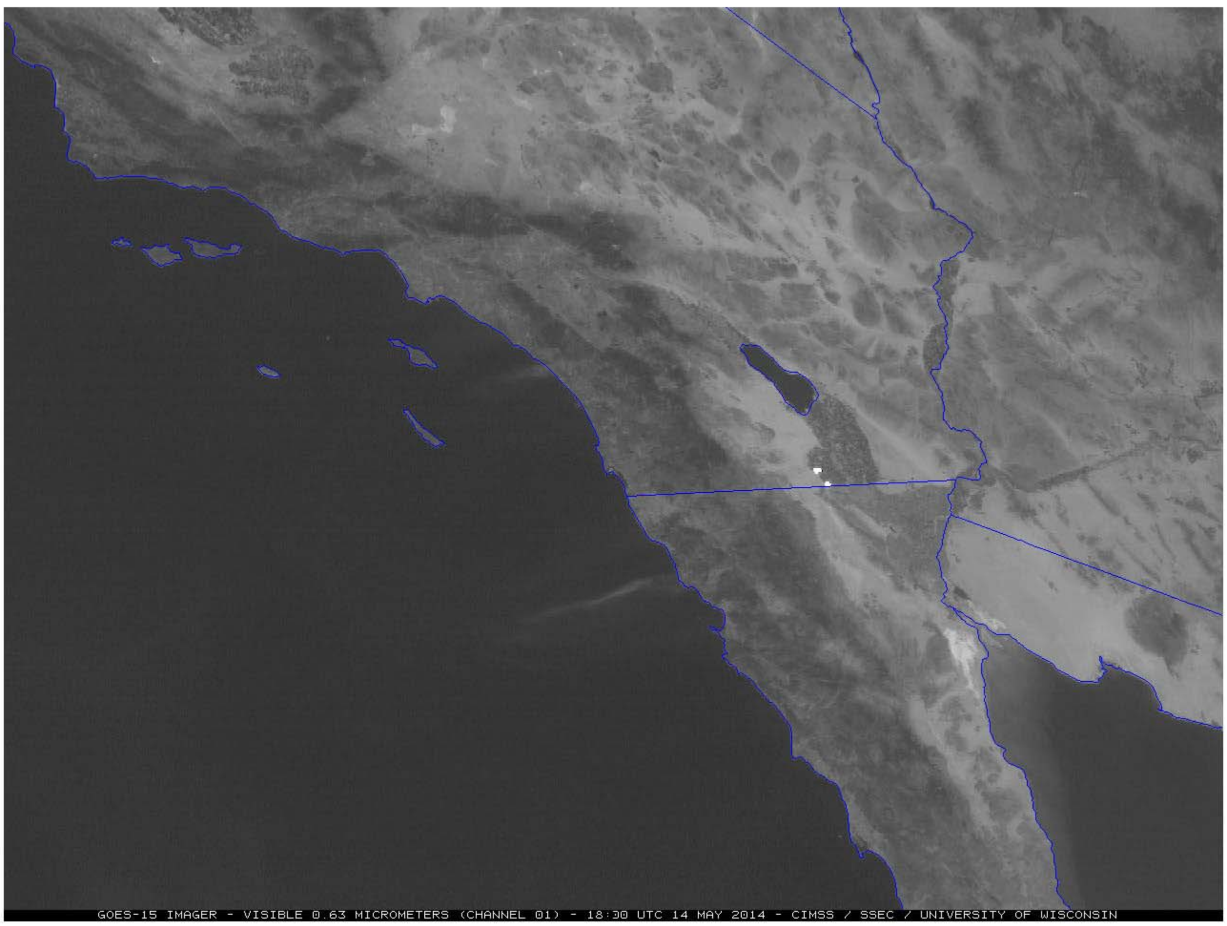
That "area" is the southern portion of the Imperial Valley, a roughly 50-mile stretch of desert that runs from the Salton Sea in the north to the Mexican border in the south. The County is currently the site of more than two dozen solar power projects.

The AV-8B Harrier that crashed last week did so only a few miles away from several utility-scale solar plants, including Imperial Solar Energy Center South power plant and the Campo Verde Project.

The Imperial Solar Energy Center South was constructed by First Solar for Omaha, Neb.-based Tenaska. The facility stretches across about 1,000 acres of land slightly south of the city of El Centro and boasts a fleet of nearly two million solar panels, enough to power more than 40,000 homes.

Last year, First Solar completed construction of the 139 megawatt Campo Verde Project in El Centro and is currently constructing the Solar Gen 2 project, which is expected to come online in July. 2014.

The satellite images show something called solar "glint," which was caused by one or more of the 28 solar power projects currently online in Imperial County.



Solar glint, a brief but intense burst of light over a solar power facility, can temporarily blind pilots flying overhead and interfere with radar and navigation systems, according to the Federal Aviation Administration.

Military investigators say that the pilot followed protocol, but have otherwise declined to comment on the cause of the accident, which is likely to take months to complete.

In the meantime, the County's fleet of solar power facilities is likely to remain a primary suspect.

This post originally appeared on Forbes

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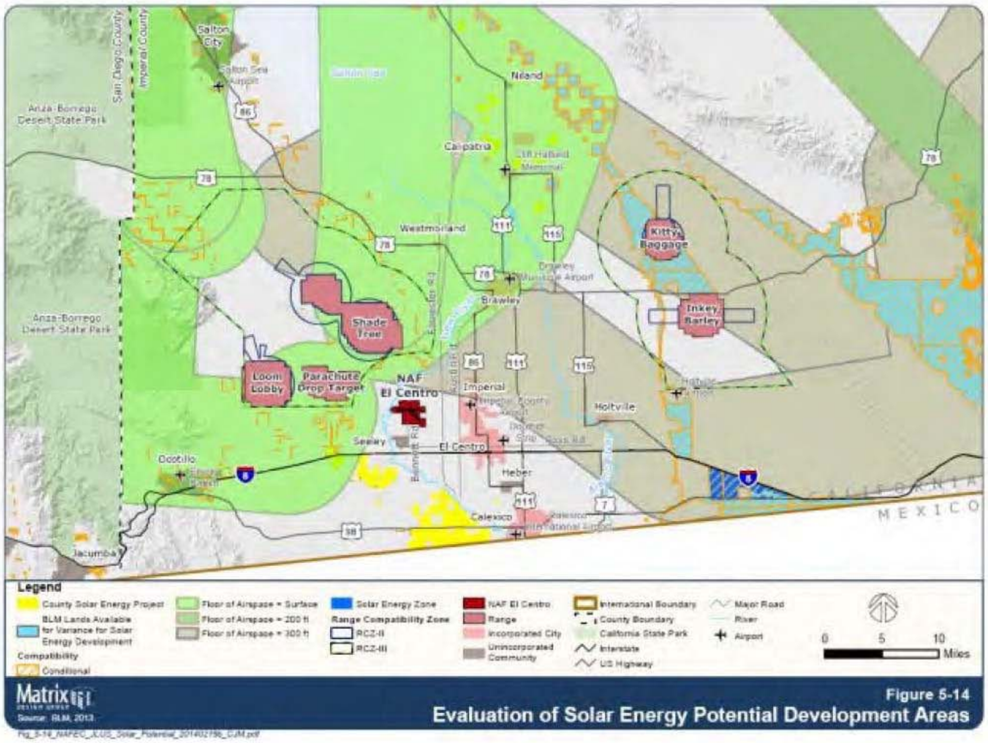
Forbes



The U.S. Department of Defense has expressed serious concerns about the potential hazards of siting solar power projects in or around military operating areas like the Naval Air Facility El Centro (NAFEC).

Located about 10 miles west of the city of Imperial, NAFEC spans 2,700 acres and is a key flight training facility for the U.S. Navy. Hundreds of flight operations are conducted out of NAFEC daily.

The renewable energy boom in Imperial County has not escaped NAFEC's notice. On the contrary, NAFEC recently completed a major joint land use planning exercise to ensure neither solar nor geothermal (which is also booming in the Imperial Valley) resources are developed in a manner that conflicts with the military's training operations.

"Construction materials used in the development of solar energy infrastructure may employ reflective surfaces causing visual impairment for pilots in training," according to the Naval Air Facility El Centro's Joint Land Use Study in February 2014.

What would have been the fourth and final workshop organized to ensure members of the public had an opportunity to comment on the more than 200 page long study was cancelled on the morning before the jet crashed in Imperial.

When that meeting is rescheduled, it seems likely to draw a bigger crowd than the previous meetings.

In recent years, several studies have evaluated the potential glint and glare impacts of solar PV facilities in Imperial County. None of those studies found a risk of nuisance or hazard from glint or glare to ground or air-based observers. The accuracy of those studies is likely to be a subject of discussion at the re-scheduled land-use meeting.

This post originally appeared on Forbes

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EXHIBIT
7

Staff Report on Burrowing Owl Mitigation

State of California

Natural Resources Agency

Department of Fish and Game

March 7, 2012[1]

[1] This document replaces the Department of Fish and Game 1995 Staff Report On Burrowing Owl Mitigation.

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