National Grid

New York Teach-In

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National Grid

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Introduction

Aarti Singhal, Director of Investor Relations
So good morning everyone and welcome to our Investor Teach-In on the New York business. As always we start with safety, no planned fire drills this morning, so if you hear an alarm if you could make your way out through those doors, down the stairs, and leave the building through reception.

So this is our first event on the New York business and really our aim is to provide you with more detail, more granularity on our growing US operations. And to help with this we've also included an analyst pack in your materials this morning.

I'm really pleased that tomorrow is going to be our first local event for some years for shareholders based in the US when we repeat this event in New York.

So we've got a full agenda this morning which is now displayed on the slide behind me. There will be two Q&A sessions, so you should have plenty of opportunity to ask lots of questions to the team. I hope that you'll enjoy meeting the team and that you'll find today's presentations insightful.

Before we move on I'd like you to take note of the cautionary statement that's included in your packs. And with that I'd now like to hand you over to our CEO, John Pettigrew, thank you.

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Opening Remarks

John Pettigrew, Chief Executive
So thank you Aarti and good morning everyone. I'm delighted you're able to join us today.

I'd like to start this morning by just setting out the objectives for the next two and a half hours, which is really to show you the quality of our US business, the opportunities for growth and improved returns, the potential for National Grid to benefit from the developments that we see in the industry, and the strong team we have in place to deliver the opportunities. And it's for those reasons that we're hugely optimistic about the future of our US business.

As you know our business is broader than just New York, but we've chosen to focus on New York today because it's our largest jurisdiction in the US, it's at the heart of our US agenda, and has significant organic growth opportunities.

So following my opening remarks Dean and the team will discuss this in detail and of course we'll also update you on the recent developments such as the NIMO rate case filing.

What I should point out is that our focus this morning is on our regulated businesses in New York, so we won't be covering other areas such as National Grid Ventures, but of course I'll be happy to take questions on this or other areas during the Q&A.

So as many of you know I've been in National Grid for over 25 years now and between 2007 and 2010 I worked in the US as the US Chief Operating Officer. So for me personally it's been a really exciting journey to see how the business has grown to now represent 42% of our asset portfolio.

So we'll just take a moment to remind you of that history. So we entered the US in the year 2000 and we expanded our footprint through a number of acquisitions, both in New England and in New York, including Niagara Mohawk in 2002 and Keyspan in 2007 and you'll hear more about both of these today.

The rationale for these acquisitions was founded on the understanding that these businesses offered a combination of attractive, low risk returns that were underpinned by stable regulatory frameworks and good organic growth potential.

So we've been in the US for 17 years and over that time our rate base has grown significantly to over $19bn, with the majority of that rate base focused on electricity and gas distribution. So to put this scale into context, National Grid's operations in the US, which now serves over seven million customers, is comparable to some of the largest domestic US utilities. Since 2010 the US business has achieved compound annual rate based growth of 5%, principally through investments and upgrading and expanding our core electricity and gas networks.

We invested $2.9bn in the US last year, which was 58% of the Group's total capex and over the last two years we've had one of the largest capital programmes in the US utility sector.

As our industry continues to evolve there are increasing investment opportunities in the distribution end of the value chain and our businesses will enable us to build on the solid foundations we already have.

For the Group as a whole we adopt a portfolio approach and each of our businesses much contribute to our growth in shareholder value, through a combination of asset growth and dividends. So as you know we're targeting asset growth for the Group in the 5 to 7% range and have a policy to grow the dividend at least in line with UK inflation for the foreseeable future.

Our US business plays an increasingly important role in contributing to this proposition. In recent years our priority has been to improve the performance of the business and consistently earn as close as possible to the allowed levels of returns. And over the last couple of years we've made good progress towards this objective and this year we're targeting 90% of allowed.

In terms of operating profit the performance has been improving and going forward we expect it to increase as we file the new rates and invest in growth.

And of course we must do all of this whilst continuing to deliver world class operational and safety performance, maintaining a robust balance sheet and positioning ourselves at the forefront of industry developments. And as I've said consistently since becoming CEO in order to create value in the longer term our customers must be at the centre of everything that we do. This will enable us to achieve our vision of exceeding the expectations of all our stakeholders.

So as we look to the future over the next couple of years we expect to see significant investment opportunity in the US. You can see from this chart that in 2017 the utility industries expected to invest about $118bn and going forward the share of network investment is expected to grow, with the potential for well over $300bn to be invested in networks by 2021.

This investment is driven not only by the need to replace aging infrastructure but also to adapt the network to the industry trends, including supporting our states to meet their aggressive environmental targets, facilitating renewable generation and meeting the increasing demands of our customers. During the season this morning Dean and the team will give more context on how these trends translate to opportunities within our jurisdictions.

Dean will also update you on the changes that we've made to strengthen the US organisation to ensure that we can deliver on this growth. And I'm confident that the highly experienced senior team which combines deep industry knowledge and local US expertise are the best team to deliver against these commitments.

So in summary I'm delighted to be here today as we showcase the work that we've been doing in New York and the progress that we've made. National Grid has a long history in the US, we're a major utility in the market and with the restart of rate filings we're on the path to deliver improving performance.

This financial year will see the full benefits of the filings of last year and we're targeting 90% of the allowed returns. With the capex plans that we have in place, together with our ongoing rate filings our expectation is for the US to deliver rate based growth of around 7% over the medium term.

The US is core to our investment proposition, offering diversification of regulatory exposure and a major opportunity for growth. I look forward to supporting the team as we continue to grow our business in the US and create long term sustainable returns for our shareholders. Now let me hand you over to Dean to take you through the morning.

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US Introduction

Dean Seavers, Executive Director, US
Thanks John, good morning everyone. Two years ago when I stood in front of you I'd been with the company just six months and at the time I laid out a pretty ambition agenda focused on growth, rate cases and ROE improvement and most of what I said centred around what we intended to do or what we planned to do. Now, almost two years later I'm proud to stand in front of you with my colleagues to say that we've grown our business commensurate with what we laid out two years ago.

We've implemented and executed on our rate case strategy, which really puts us in position to continue our growth trajectory and affords our business the opportunity to improve our earnings. And operationally, as John said, we've improved our safety performance, controlled our spending and focused on embedding process driven efficiencies so that we can sustain the improvement we've seen over the last couple of years.

And as a US leadership team we are both confident and committed to our operational framework and I'm proud to lead the team as we continue our journey of creating value for our customers and value for our shareholders.

So now let me take just a few moments to show you our actual performance relative to the priorities we laid out two years ago. First, we articulated a growth expectation of around 7%. Since then our rate base has grown by more than $2bn, and our growth rate, excluding movements in working capital has averaged 7%. This has been driven by a significant capital plan, which has increased by a half a billion dollars in two years, reaching $2.9bn on an IFRS basis. This year we expect to invest over $3bn with the increased level of investment being funded by new rate plans.

In the past two years we successfully filed major rate cases for Massachusetts Electric, our Downstate New York businesses of KEDLI and KEDNY and Niagara Mohawk, together these represent 70% of our rate base and this follows a temporary hiatus that we had in our filings. This year we're preparing to file our remaining distribution companies as we have the ability to file as needed on an ongoing basis. This is very important as we can now file cases based on quality data before our rates get out of date. This is fundamental to our ability to achieve closer to our allowed returns.

And our returns have started to improve, as John mentioned we remain strongly focused on improving the performance of our business. And for the current year we're targeting 90% of our allowed.

Now John began today's presentation by outlining National Grid's value proposition, within this framework our US priorities moving forward are clear. Core to our business is a focus on delivering world class network reliability and safety performance and we have made significant progress here. Our OSHA recordable injuries are down 20% since the end of 2016.

At the same time we've focused on managing our financial performance so that we can deliver returns as close to the allowed as possible and we expect to deliver 90% of allowed this year.

The team is committed and has robust plans to continuing driving both operational and financial improvements. Now, combined with this focus on operational execution we also have significant organic growth opportunities and we're focused on delivering that growth in a disciplined manner, working within our rate plan so we can receive timely recovery of our investments.

Now alongside this we're preparing for the longer term by evolving with the changes that are taking place in our industry. In each of the states where we operate we've proposed a number of new solutions for our customers to help them benefit from advancements in our space.

Of course these proposals must be made in a responsible way that considers customer affordability. Everything we do must begin and end with the customer in mind. And this will be a theme throughout today's presentation.

Now let me now turn to the four drivers for investments in our networks which John touched on briefly, they are in aging infrastructure, environmental policy, falling costs for renewables, and changing customer needs.

In the North East where we operate more than half of the electricity and gas infrastructure was built in the 1970s or before and replacement and modernisation of this aging infrastructure will underpin our robust investment plans over the medium terms.

On the gas side, mandated work, which includes lead prone pipe replacement accounts for about 60% of our capex. Now in contrast to the UK we're actually in the early stages of our pipe replacement programme. There has been a clear desire by our regulators and the public to accelerate our pipe replacement. And this increased level of investment will remain for years to come. In our territory we are replacing just over 400 miles per year, with some jurisdictions having almost 20 years left in their replacement programmes.

The rest of our gas investment plan consists of about 25% growth related investment, which includes expanding the network into new areas, or accommodating greater demand in existing areas. And about 15% reliability investment, where we focus on maintaining sufficient monitoring and control capability and strengthen the integrity of our gas network.

On the electric side there is a significant need to modernise the aging networks in order to be able to handle the current demands, this includes renewables and more distributor resources, as well as to better stand up to storms. Like on the gas side this asset condition work represented 60% of our electric investment last year, including replacing our poles, wires and transformers and mitigating future risk on our networks.

For the rest of the plan about 15% was customer driven work, providing customers with new services and outdoor light connections and about 25% includes solutions to address capacity needs and assuring communications and control systems meet future expectations.

The fundamental drivers of investment will support our investment plan over the medium term and this is true across both our electric and our gas business. It's a fantastic opportunity to invest in our core business.

Let me now turn to the environmental agenda, in the North East we have some of the more progressive jurisdictions that have aggressive renewable standards and plans to drive real change on behalf of customers and this is resulting in more opportunities for our company. New York, Massachusetts and Rhode Island all have strong targets for CO_2 reduction over the medium and long term, which have remained unchanged despite changing support at the Federal level.

This gives us an opportunity to play a big role in the energy transition across a number of areas within our regulated businesses. We are already a leader in energy efficiency and demand response, and we have a growing presence and a growing influence in distributed generation and grid modernisation. Some of these efforts are included in our plans and some represent upside to future investment plans. In addition, we can compete for transition projects to bring clean energy into the region and make further investments through National Grid Ventures in the semi or non-regulated space.

So the clean energy policy objectives that I just outlined create opportunities for us and these policy objectives are now much more achievable as the economics of clean energy continue to improve. For example, looking at large scale renewables, since 2009 solar costs have declined 85%, and onshore wind costs have reduced by two thirds on a per megawatt hour basis. Clearly these trends are increasing the appetite to integrate more renewables into the generation mix.

According to Bloomberg New Energy Finance, by 2025 the US will have over 80 gigawatts of installed utility scale solar capacity and over 140 gigawatts of wind. This transition towards cleaner sources of energy will create opportunities for National Grid at multiple points along the value chain and we are preparing ourselves to capitalise on those opportunities.

As an example we're increasing installed solar capacity in our Massachusetts rate base and have connected the US's first offshore wind farm with an investment we made to our regulated Rhode Island business.

As John laid out our strategy puts customers first in everything we do. Our strategy puts customers first in everything they do. This is particularly important in the US where we have direct contact with seven main accounts representing 20 million people. We believe that developing good relationships with our customers by providing a frictionless experience will help position the company as a preferred provider or new products and new services. That is why it's absolutely essential that we evolve our business alongside our customers. Customers are looking for a seamless and more personalised customer experience and are not afraid to tell us what they want. This is especially true of younger generations who are used to interacting with their utilities at a rate that is six times that of baby boomers, via mobile apps and through social media.

I think this creates a new opportunity to understand our customers even better than we have in the past and is therefore a great opportunity to deepen the value proposition for our customers.

Over the next ten years we believe that one of the most exciting customer driven trends will be the adoption of electric vehicles. A National Grid survey shows that about a quarter of our residential customers would be extremely, or very likely to consider an electric vehicle for their next automobile purchase. That extrapolates to more than a million and a half customers. There are still some hurdles with the technology itself, and some hurdles with the cost of that technology, but more relevant for National Grid is the lack of a charging infrastructure. And the majority of our customers believe the utility should be responsible for developing public EV charging stations.

Now again if we use Massachusetts as an example there needs to be huge increases in charging points to be able to accommodate the expected growth in demand. This could create opportunities for us through the development and management of a charging infrastructure in the medium term.

To help our company and our regulators better understand these opportunities we have a number of projects and proposals underway, in both Massachusetts and New York. Over the next three years we could build up to 2,500 new charging ports, while also helping customers learn more about electric vehicles through territory wide education campaigns. We will use these initiatives to help to better understand customer behaviours, so that we are more informed and better positioned in the future.

So with this backdrop we are preparing our organisation for the sustained level of growth. I have introduced some changes that will enable the organisation to benefit from our broader US scale and replicate improvements across the business. We have a very disciplined and robust performance management framework in place that we call

Cadence. This ensures that our team has the appropriate responsibilities and accountabilities and that we are getting quality information on a timely basis, which together enables effective decision making.

Along the same lines we developed a strong rate filing programme that I mentioned earlier. We now have the resources, the structure, and the process to be able to file effective rate cases as needed. This is clearly important in driving improved financial performance as it allows us to align our regulated revenue with the costs required to service our customers.

We've also evolved our operational functions to include end to end process views and a UK style capital delivery function, where we're actually leveraging a few of our experienced UK colleagues to help us jump start this function and adopting their lessons learnt to our regulatory requirements.

Now in doing so Marcy Reed, who you know as President of our Massachusetts business, has recently become a new role overseeing business operations, engineering and process and that's across all of our jurisdictions. This includes development and oversight of our end to end processes which are designed to strengthen our customer focus. Now you'll hear more about this from Marcy today, but I believe Marcy is uniquely qualified for this role, because her tenure as a jurisdictional president makes her well versed in the process needs from a customer and regulatory perspective.

Having taken on this new role Marcy will be succeeded as President of the Massachusetts jurisdiction by Cordi O'Hara. I'm really pleased to have Cordi join our team as she brings excellent experience from her commercial background and in particular her most recent role as Head of the UK System Operator.

Also as part of the evolution of our operations John Bruckner will be leading the new complex Capital Delivery function, as well as Network Operations and Safety. Lastly, I have appointed Charles Dickerson as President of Business Services, who will look to take our shared services function to the next level.

So together with Ken Daly and Mike Calviou who you'll hear from today, as well as the other jurisdictional presidents Rudy and Tim, each who have 29 years with National Grid, we have a diverse, highly experienced team that's driving the US agenda.

Now before I summarise let me turn to New York which is the key focus of our presentation today. John talked about why he thought New York was such an important part of our portfolio, so let me spend just a minute giving you my perspective as well.

It is our largest jurisdiction representing more than 50% of our US rate base and about 50% of our capital investment. So from a scale perspective it would be a significant utility in its own right. And the investments we are making in New York impact a number of communities in a significant way. Ken and the New York team have been diligent in improving the operational and regulatory performance and he's going to talk to you about that today.

And as I think about the customers in Brooklyn and Long Island and Staten Island and also the customers in Rochester and Buffalo and Syracuse I'm reminded that we have this incredibly diverse set of communities that we partner with to both revitalise and sustain their economies and bring energy to life for millions of customers. We've been here for 15 years and New York is not only an important part of the US business and as you'll hear today, New York represents a lot of opportunity for us and for the communities we serve.

So let me summarise. I believe we're well positioned to capitalise on the growth opportunities in our industry. We expect to invest around $3bn per year in the medium term. The industry trends and broader landscape for the US favours growth in our region. The industry is dynamic and we'll work to position ourselves so that we can capitalise on these future opportunities in a way that creates value for our customers and value for our shareholders.

We have improved our operational and regulatory execution, so that growth will be more profitable for us. And this is a testament to the team's focus and commitment. As I said earlier I am proud of our team, we've made progress in the performance of the US business and this continues to be a top priority. We are evolving and strengthening the US organisation to enable us to deliver on the significant growth we see ahead. And we are laser focused on delivering for our customers.

So now let me hand over to Ken to give more detail about the New York operation.

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New York Overview

Ken Daly, CFA, New York President & Chief Operating Officer
Thank you Dean and good morning, I'm really delighted to be here and provide an overview on the New York business. As Dean mentioned I've been with the company now for 29 years, the last six of which I've had the privilege of leading our New York business. And really my role is to ensure that all the opportunities that John and Dean laid out across our US business that in New York we're well positioned to capitalise on these opportunities.

I think my three key messages are since we last met at the investor seminar now two years ago, you know one is that we've made very good progress both operationally and financially. Secondly that the progress is underpinned by a very strong regulatory framework and investment plans. And then finally what really excites me is when you look forward the New York business is really well positioned for the future growth opportunity. And I think I can bring you real visibility into the opportunity.

So let me start with an overview and it's clear that New York at National Grid we have a major presence in the State. In fact when you look at the chart on the left you'll see in terms of the size of the business, miles of pipe, miles of wire, we're by far the largest in the state. We serve over four million customers of the seven million that Dean mentioned across the US, four million are in our New York business. And when you look at the chart on the right you'll see in terms of investments over just the past five years we've now invested over $6bn upgrading the infrastructure in Upstate and Downstate New York.

But more than that we really are a major part of the New York State economic engine and the energy mix. We employ 8,000 employees of our own and we also support many more thousands of jobs across the State in terms of our investment programmes and in some of the customer programmes that I'll share with you shortly.

In terms of rate base, you know as Dean said, New York - a major business in its own right, over $10bn, roughly 50/50 between Upstate and Downstate. But when you look at the map, the green and blue, that's Upstate New York a very, very vast service territory of over 25,000 square miles, in Upstate we're both a gas and an electric company serving over two million customers. We have some major cities like Buffalo, Albany, and Syracuse, but more so we serve many, many smaller communities across all of Upstate New York.

If you look at Downstate New York, the purple part of the map, there we're a major gas business, a service territory that serves big cities in New York like Brooklyn, Queens, Staten Island, and then we also serve the whole of Long Island. And what's very unique about Long Island is there is still very low penetration of natural gas, so it provides years and years of growth opportunity for the company as we move forward.

In terms of our financials, you know again we're proud that we are improving the overall performance. If you look at the capital investments they have been increasing I think as you'll hear from Peggy our CFO shortly, when you roll in the new rate agreements you'll see a further increase in the capital. Our rate base is growing very solidly and if you look at the financial returns you can see the improvement. In fact in fiscal year '17 you see the benefit of the partial year impact of the KEDNY and KEDLI rate agreements.

So really it is the regulatory filings, not just the rate cases, but a series of interim filings that we've made to update our capital programmes. And in fact over the last few years we've made four of these filings and these filings have been successful and they have funded $3.2bn worth of capital over that same timeframe, which has really allowed us again to modernise the gas and the electric infrastructure.

But the main focus is on the rate cases. As you know this past January the KEDNY and KEDLI rate case for the Downstate business came into effect for the first time in ten years, so after a ten year rate freeze we updated the rates. That funded a further $3bn in capital and the main focus; the main priority for the current year now is to deliver the Niagara Mohawk rate agreement. Mike will walk you through the details, but I think the headlines are that by next April all of the New York business will have refreshed rates across Upstate and Downstate.

In terms of the priorities Dean walked you through the US priorities and when you look at the New York priorities you'll see that we are completely aligned. Clearly the priorities are delivering excellent customer service, delivering world class reliability and safety, investing efficiently and ensuring that that investment is timely recovered, delivering on our regulatory strategy as I've mentioned and then finally looking to the future - advancing New York State's energy policy.

Let me now walk you through each of the five in a bit more detail. And as Dean said, I'll start with the customer. In our rates now we have a series of programmes that allow us to meet the changing requirements of the customers that Dean mentioned, but at the same time help New York State advance its major energy policies.

So first is energy affordability, one of the main challenges is to support customers who have trouble paying their bills. In our rate agreements we'll now have over $100m funded to provide bill credits and other tools to help these customers.

Clean energy is clearly another priority; if you look at solar we've seen a massive increase in customer owned solar, an 800% increase over the past six years, resulting in 14,000 new connections to our grid.

Energy efficiency, we have an $80m programme to give customers new tools and new technologies to help them manage their energy usage. And again as part of the rate filing we're looking to increase that.

And then economic development, over $100m funded in rates since 2011 really helping our communities retain jobs. I think the best example was in the days and weeks after Hurricane Sandy, we launched a $30m in Downstate New York to help those customers rebuild their energy systems. And you think about what Florida and Texas are going through right now, you know it shows you how important those programmes were to our communities. And in fact we look back - 10,000 jobs were retained because of National Grid's economic development programmes.

And then finally gas growth, you know we're in a very unique position in that we still have significant opportunities to convert customers from oil to natural gas. The benefit to the customers is based on today's pricing they save 50% on their winter heating bills. The benefit to the community is it brings in a cleaner form of energy, in fact each single conversion we equate to the equivalent of taking 15 cars off the road. And then finally the benefit to the company, clearly it provides a growth engine for many, many years to come.

Let me give you an example of one our new gas growth programmes that we've worked with our regulator and the local communities to implement. So rather than converting customers one at a time like we've traditionally done, we now have the ability to go in on the front end and make a very, very large investment which enables us to more quickly convert the entire community.

The first example I'll give is in Nassau County, so the western end of the Long Island in a community called East Hills, where previously half of the residents did not have access to our gas system. So again on the front end in one single job we laid 80,000 feet of gas main. And if you look at the benefits, we are able to convert now up to 1,000 customers on that one single programme. That small community will save $1m in their energy bills and again the equivalent of taking 15,000 cars off the road now given the scale of the project.

The next phase we're moving out to Suffolk Country, so further east on Long Island where there's an even lower penetration of natural gas. We're going to install over 30,000 feet of main in Suffolk Country. Again, help create jobs, stimulate the economy but at the same time funded in rates we have a number of incentives that we can offer to customers who are along the route, or big incentives to our low income customers, again to try to avail them to the economic and environmental advantages of natural gas.

Next, clearly we're focused on becoming world class in terms of safety and reliability. You heard from Dean the focus on employee safety, we have a lot of pride in the fact that each year we're seeing fewer road traffic collisions, fewer employee safety incidents, but to be clear as a leader of the business our goal is always zero, we want to get to the point where we have no incidents on our system.

We're equally focused on public safety. And if you look at our track record you know not only do we achieve all of our 12 customer service metrics, but last year we also achieved all 30 of our very stretching gas and electric reliability targets.

For 2017, the current year, we're once again on schedule to meet all of these requirements, despite some very extreme weather we've seen in Upstate New York. In fact back in March New York State was hit with a very, very big windstorm. We ourselves lost 180,000 customers, and not only were we able to restore those customers very, very quickly, but then we immediately dispatched hundreds of our crews to a neighbouring utility within the state to help them with their restoration efforts.

After the event we were very proud to receive an award from EEI, the Edison Electric Institute for our storm response and for our support of the neighbouring utility. In fact just yesterday we sent 300 National Grid employees and contractors down to Florida to support in its restoration efforts.

But when you look at the programmes you know it really gives us an opportunity with the capital investment to replace a lot of aging infrastructure. And if you look at the chart on the right, I think as Dean mentioned, leak prone pipe is probably the best example and a real feature of the Downstate rate agreements. Just a few years ago we were replacing 140 miles per year, by 2020 all funded in rates that will jump to nearly 300 miles; so again lower emissions for the community and a real growth engine for the company as we move forward.

But we can't just replace the pipe, we really need to make sure we're doing it in an efficient manner and that we're using all of the available tools and technologies. An example I like to share is CISBOT, it's a cast iron sealing robot. And if you think about you know cities like Brooklyn and Queens where we have a very dense population and very, very tight streets, the benefit of the robot if you look at the pictures would make a single excavation and then the robot if you can imagine can crawl 500 feet in each direction and every 12 feet stops along the way and seals the joints in the cast iron pipe. So rather than replacing the pipe we just restore it and it effectively becomes new and instead of dozens of excavations we make that one single excavation.

We've been using this technology now for the past two years, again as part of the agreement with our regulators and you can see the early benefits. We've sealed nearly 2,000 joints at a saving of $30m compared to traditional replacement or repair methodologies.

The third strategy is very focused on regulatory. And I thought before I get into the details and Mike will walk you through a lot in his section, just to explain who are the key stakeholders. So on the government side, you know clearly the rules and the regulations are made by the government, both at the Federal level, but much more so at the State level and we have very, very close working relationships with the State's energy team.

Secondly, are local communities, not just storm response but also every day meeting their energy requirements, particularly more and more around clean energy.

And then third of course the New York Public Service Commission, the PSC, you know similar to Ofgem is charged with overseeing the utilities across New York State. There are currently four commissioners in post, a new Chair, John Rhodes, I know John well we serve together on the New York State Energy Authority Board and also a staff of dedicated - hundreds of public servants as part of the DPS, the Department of Public Service.

Now we really pride ourselves in our ability to collaborate with all of these stakeholders, certainly we've shared the storm example, but I think the rate case and the regulatory process is another best in class. If you look back at those capital filings and the outcomes we've achieved, but also the most recent rate case, the Downstate KEDNY and KEDLI agreement is probably the best example.

If just walk you through the details, again as you know it covers the calendar years '17 to '19, so a three year agreement. By the third year it provides $500m worth of new revenues, new funds for us to run the New York business. It's underpinned by a 9% return on equity, it supports as I mentioned a $3bn three year capital programme and it has a number of features, trackers that help mitigate the risk to the business.

So Mike will walk you through the pension tracker and bad debt, property tax and so on. But two I wanted to highlight are new, one is around public works, so New York State and New York City do a lot of work, if their work plans cause us to spend more than what was contemplated in our rates we have a tracker.

Likewise the cost to clean up legacy environmental sites, if those costs exceed the amount that's in rates again we have the right now to go back in and collect a surcharge from customers to help offset that. So we really felt that the rate agreement was very, very balanced for both our customers and for you our shareholders.

And then finally looking forward, you know clearly as a major player in New York State we're looking to help lead the way in the State's energy policy for the future; in New York that's called REV, Reforming the Energy Vision. But before we make any large scale investments we have a series of demonstration projects right now - we're trying to test the feasibility and the customer adaption to these programmes.

So there are eight demos and I thought I would just kind of walk you across the State. If you start in Buffalo a really good example is a $4m investment we're making to install solar panels on the roofs of low income customers. So we're trying to test the feasibility of a utility like National Grid rate basing this investment and then those customers getting the benefit of the clean energy and then the energy savings being helped - to help them pay for their bills.

In Potsdam the northern part of our business, very much impacted by storms we're testing a micro grid, we can very quickly island off our system in the event of an extreme weather event.

Clifton Park is a smart grid demo, 20,000 smart meters and sensors and thermostats - testing whether we can get customers to change and use their energy behaviour more wisely. And then in Downstate a series of very, very similar demos, but on the gas side, demand response, micro CHP and actually even trying a geothermal demo. So the goal here is the test these locally, you know very innovative, relatively small scale, but eventually look for some larger investment opportunities in the future.

So in summary, you know clearly National Grid is a major presence in New York and as I said in the front end we believe we've made good progress in terms of our operational performance, customer service, safety and reliability, good progress in terms of our financial performance. This performance is now underpinned by strong regulatory agreements and again all of our regulatory agreements will be refreshed by next April, a real focus on cost management and technology. And I think what excites me most is real visibility to growth for the future. And that visibility again is driven by the regulatory strategy and with that I'll now turn it over to Mike who'll walk you through it in greater detail, Mike.

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Regulatory

Mike Calviou, SVP, Regulation and Pricing
Thanks Ken and good morning everyone. My name is Mike Calviou and I lead the US Regulation and Pricing team. As you can probably guess from my accent the majority of my career has been in the UK, however I have been in my current role for the past two years and I'm now a permanent member of the US Leadership Team.

In my presentation I'll be giving you an oversight of our regulatory strategy, which includes a transition to a more performance based regulation approach. And then I'll give you a more detailed insight into the Niagara Mohawk rate case process. This is a very important case for us given its size and its scope. I'll explain where we are in the process and why we're confident we're going to get a fair outcome.

As you just heard we've made good progress in New York on our regulated strategy with the KEDLI and KEDNY filing complete and the Niagara Mohawk filing expected to be in rates from April 2018 onwards.

Before I update you further on the filing process I'd like to take a few minutes to talk about how we think about our regulatory strategy in the US.

It's the role for me and the rest of the regulatory team to create and agree a regulatory framework that's consistent with the company strategy that Dean referred to earlier. Our key regulatory objective are as follows: Firstly as Dean set out significant levels of investment are required to update aging infrastructure to ensure we continue to provide a safe and reliable service to our customers. So ensuring timely funding for this investment is critical, while earning a fair return for our shareholders and also managing the bill impact for our customers.

Secondly, we're also being asked by regulators to respond to the carbon reduction targets in each of our jurisdictions through the connection of solar, wind and storage assets and the development and deployment of demand side response, micro grids and smart meters. Our aim is to ensure funding and to build the right regulatory framework to support this transition to the utility of the future.

Our regulatory agreements also need to support our ability to serve our customers. For example as you heard we're facilitating the conversion of customers from oil to gas heating and we're increasingly thinking about electric heating and vehicle demand as part of the overall decarbonisation of the economy, so we need the right funding and incentives to do this as well as the other customer programmes that Ken referred to.

Finally, we aim to increase the opportunity to earn higher ROE, in return for where we create additional value for our customers and or help deliver State energy policy goals. I have extensive experience in UK based regulation, such as RIIO that has increased emphasis on incentives. I have therefore seen the benefits that this sort of performance based regulation has brought to UK energy consumers, as it enables win-wins for customers and the company. Therefore, I believe it is one of the key tools that we can use to incentivise utility companies such as ourselves as we pursue the important priorities discussed earlier.

We already have some incentives in place, for example relating to our really successful energy efficiency programmes. But we're looking to increase the scope of these incentives, as well as have a better balance between upsides and downsides. The great news is that the need for improvements to traditional US regulatory approach is already recognised by many of our regulators and key stakeholders, given the changing energy landscape we operate in.

Before looking at how the regulatory environment is evolving in New York it's worth noting that the US regulatory regimes in each of our three states are among the most stable and progressive in the world. The majority of our operations in the US are allowed to file forward test years, allowing us to better manage the effects of regulatory lag and reduce the frequency of filing over longer term, which is burdensome to us and our regulators.

Over the past two years we've seen intensive rate case activity, which will continue for the next few years. However, our longer term aim is to create the regulatory frameworks that allow us to file less frequently, while still delivering good business performance.

All of our rate plans include features that protect shareholders from certain types of cost inflation where it is large beyond our control. These mechanisms are referred to as trackers and include costs such as property taxes, the commodity element of bad debt charge, environmental clean-up costs, and pensions and other post-employment benefits known as OPEBs.

We currently also have trackers for capital investment programmes, however we would like to increase the incentives on us to deliver these programmes efficiently as part of the overall performance based regulation strategy.

There are also elements of regulation in the US that are attractive to us as a Group when we look at the portfolio of companies we operate, particularly the cash generative nature of nominal regulation in the US. Peggy will touch on this in more detail, but it's worth remembering that whilst we're looking to evolve and improve the regulatory regimes that we work within in the US they are already great places to operate as a regulated utility.

In order to work effectively within any regulatory framework it's important to have open and honest communication channels that operate continuously so we're able to build up a level of trust and mutual understanding with our key stakeholders. Therefore, in New York we run a proactive stakeholder outreach programme with the Public Service Commission, the PSC, that's created open and transparent dialogue with our regulators. It includes upfront meetings with PSC staff, as well as informal and formal technical sessions to educate on any solution we might propose and seeks to obtain input and guidance upfront before any formal submission is made.

So for example, Ken, myself and a number of other members of the Senior Leadership team met with the then Chair Audrey Zibleman and other commissioners and most of the senior PSC staff in Albany, just before we filed the Niagara Mohawk case to talk about all the key issues. And that fundamentally shaped the filing and what we submitted.

Since that time, as you heard, we actually have a new Chair John Rhodes and an additional new commissioner, so we've worked hard to make sure that everyone is fully up to speed.

We believe our approach to regulatory and stakeholder engagement is best in class and this is starting to see benefits. So let me give you a few examples. We've been successful in recently negotiating several interim agreements outside of rate cases as Ken mentioned, something that had not historically been contemplated. These include the special surcharge recovery for environmental clean-up costs. And also the KEDNY, KEDLI and Niagara Mohawk rate case extensions.

We continue to advance REV demonstration projects, working collaboratively with the PSC, with a number already approved. Again, all of this being done outside the traditional rate case process.

And our recent rate cases, albeit they involve very challenging discussions, have been a lot less confrontational and have led to less extreme positions being taken in rebuttal, which we believe ultimately leads to better outcomes for everyone. This is in contrast to you know past New York rate cases, which some of you may recall got pretty heated. And it really demonstrates the massive improvements we've made in this area of stakeholder relations over recent years.

We have also been successful in advancing elements of the regulatory strategy as set out earlier. So for example in the KEDNY and KEDLI rate plan has a number of new incentives around areas such as capex unit costs, miles of leak prone pipe removed, and reductions in gas leaks.

So, where do we stand today, we've completed the KEDNY and KEDLI filings with new rates in effect from January 2017 through to December 2019, which covers 46% of the New York rate base. Ken has already shared with you how this filing is contributing to our financial performance and delivering important investment for our customers.

The Niagara Mohawk business represents the remaining 54% and we expect new rates to come into effect in April 2018. So I'd like to spend a few moments walking through how the process works and also update you on the progress we've made through this rate case.

The rate case process starts about six months before we actually file it, the first step is to define the rate case strategy and prioritise our issues. For Niagara Mohawk filing here are the key things we identified. So obtaining funding for core investments and enable these utility of the future investments we've talked about, maintaining existing trackers, the introduction of new outcome based incentives, multiyear allowances with upside opportunity from efficiencies and of course achieve an acceptable level of base ROE.

One key aspect of the filing was to include the request for funding for REV. the proposals includes spending associated with the REV demonstrations that Ken mentioned, new investments to facilitate distributed energy resources, as well as new REV related upside only performance based incentives, which in New York are known as earning adjustment mechanisms, or EAMs.

Other preparation for the rate case includes the audit of the historic test year. The historic test year is the actual period of results, in this case for 12 months ended December 2016, which is used as the basis for the filing. It is this data on which assumptions are overlaid to forecast the costs for the first year of the rate case and also the additional two years of data which we've supplied to facilitate a multiyear agreement.

Next we develop detail testimony and exhibits that support the case. So for the Niagara Mohawk filing this includes a total of 22 volumes of testimony and exhibits, with over 40 members of the company providing written testimony from across the various functional areas.

And finally, and building on what I was setting out earlier, we completed a proactive stakeholder outreach programme that creates open and transparent dialogue with our stakeholders and regulators. So subject matter experts from functional areas are teamed with their counterparts at the PSC to discuss issues that are addressed in the case.

So to give you an example Keith McAfee who leads the New York Electric operations team has had several intensive meetings with his counterparts in the PSC to discuss our request for increased vegetation management spend. This is actually quite a challenging area at the moment due to the emerald ash borer, which is having a devastating impact on trees across the US, so causing us to work hard and spend more money to keep our rights of way clear.

Meetings are held prior to the filing and provide the PSC information on progress against regulatory commitments and informs them of the challenges the company is facing. And this creates a collaborative environment to resolve issues. We work to create a no surprises culture between the company and the PSC.

Overall all, all of this stakeholder outreach equates to over 200 meetings held prior to actually the full rate case filing. Once we've filed, we then hold formal technical sessions to make sure we educate call PSC staff on the company's position and to make sure they have a full understanding of the case.

In addition, we've done more than 250 meetings with customers and other key stakeholders, which helps shape the filing. So we've met with customers, customer representatives, state agencies, local governments, school districts, hospitals, environmental advocates, economic and community partners, and electric officials across Upstate New York to educate them on the need to increase rates and gain their input on what they're looking for from National Grid. What we heard, I guess not surprisingly is that their priorities are reliability, safety, affordability and sustainability.

We filed the Niagara Mohawk case in April 2017, subject to the finalisation of a number of cost assumptions, the largest which is the completion of actuarial pension studies. The filing was then updated in July and we sought a total of £331m of incremental revenue in year one.

In an effort to manage bill impacts the company's proposal includes phasing in the increase over a three year settlement period and the use of existing funds owed to customers, i.e. regulatory liabilities to offset the company's need for rate relief. This has the impact of reducing the level of customer billings by approximately $250m over the three years. The end result was a total monthly bill impact of $8.93 or 11% for an average residential electric customer and $8.70, or 12.5% for an average residential gas customer.

As you know the return on equity requested was 9.79% and the cost of debt was 4.32% with an equity ratio of 48%.

On the filing date a discovery process is initiated. This allows all active parties, including the PSC, to submit written questions on the rate case. We then have ten days to respond. To date we have received and responded to over 1,800 questions on time, which has really built confidence and credibility in our case.

Much of the proposed increases were to fund greater levels of O&M for items such as low income programmes, Ken referred to, economic development, and increased vegetation management, as well as increased capex investment and also adjustments to our asset lives.

As we look to understand the rebuttal and look ahead to the outcome of the case it's worth remembering the way the case was constructed was to allow optionality for the regulator, but by providing a number of proposed initiatives. It's natural therefore in any rate case that we would expect the level of approved revenue to be lower than the ask as these initiatives are prioritised and weighed against the corresponding bill impacts for our customers. The point though is that many of these items will not have a direct impact on earnings if they are not funded. This flexibility also allows the provision of three years of forecast date to allow for multiyear agreement, much like our approach in the KEDNY and KEDLI rate case.

So on August 25th the PSC staff issued their rebuttal testimony. There recommendation was to approve 45% of our updated ask for electric and 50% for our gas business, with an 8.25% allowed return on equity. This excludes energy efficiency, which PSC staff has moved into base rates.

This is usually the low point in a long process that's still a while to go, but it's worth noting the in recent rate cases in New York across all electricity and gas utilities PSC staff's first position has actually averaged about 5% of each company's ask. So in contrast to the 45 to 50% proposed in our case. So against that benchmark we're actually starting from an okay position.

And although we inevitably focus on the areas of disagreement, i.e. things they are not proposing to fund, we should not forget that there are a number of positives in their position. So for example they agreed to our proposal for 48% equity ratio.

The reduction in revenue that they propose can be classified into three main components, firstly a reduction into the headline allowed return, which clearly would have an impact on earnings. However, we expect their rebuttal position represents a low point and there should be upside here via a stay out premium in any settlement agreement we may be able to reach, as well as any additional support for a better number we can provide in our rebuttal to theirs.

Secondly, are those items where there will be an offsetting reduction to the level of costs incurred by the company? So the largest item here is the depreciation charge, which is adjusted under US GAAP to align with the outcome from the filing. Therefore the depreciation charge and the associated revenue always match and so we do not see an earnings impact from such items under US GAAP.

Finally are those items that could potentially have an impact on our achieved return on equity. An example of this could include operations and maintenance expenditure. So if the outcome for something we've asked for was lower than we requested then we'd have to look to live within our means and try to adjust our costs to fit within the revenue allowed. So this could mean reducing the level of workload and or setting challenging efficiency targets. And to the extent that we're not able to remove all these unfunded costs then there could be an impact to earnings for revenue reductions in this category.

Clearly, the PSC staff rebuttal is only one step in the process and we will look to provide further support for the costs that they are challenging in our response, which we're actually filing at the end of this week. I think we have a strong case and I'm cautiously pleased with how the process has gone so far.

So the company's rebutting PSC staff's position in full with only a few minor exceptions, but of particular note is ROE and IT systems investment. In terms of return on equity, staff rely heavily on their discounted cash flow methodology and they continue to provide historically low results for utility companies, as utility valuations remained high causing dividend reals to be very low. The effect of these anomalous capital market conditions on the DCF has been recognised in other jurisdictions such as FERC. But despite these market conditions, PSC staff has not substantially modified its methodology.

In our formal rebuttal we will argue that they should consider alternative approaches to determine appropriate ROE. Further in any multiyear settlement we will argue we should expect ROE in the range of other recently approved settlements in New York, so most recently both Con Ed and Corning Gas who agreed 9%.

In terms of our IT programme our system investment has a number of projects and the overall programme was not insignificant. PSC staff has indicated concern around our cost estimate and our ability to deliver such a significant programme. Our formal rebuttal will indicate that to meet business needs we need to advance the entire portfolio of projects, that our estimates are sound and that we're prepared and have the resources to deliver this programme in the timeframes we've outlined in the case. However, expected as part of any multiyear settlement there's some concessions in this area that may need to be made, though as noted earlier we would then aim to live within these funding levels.

So to summarise, New York is an attractive place to operate with some of the most progressive energy policies in the United States, including forward looking rate plans, trackers for costs we have little control over and substantial growth opportunities, particularly due to the State's energy policies.

We've made really good progress on our regulatory filings in both New York and across the rest of the US business. So once we've completed Niagara Mohawk and filed Rhode Island and Massachusetts Gas as part of our ongoing filing cycle we'd have completed a full cycle of rate cases for all of our operating companies. And this will lay a great foundation for the future of the business.

And we continue to advance our regulatory strategy, including identifying opportunities to introduce more performance based regulation, which is for the benefit of both ourselves and our customers.

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Coffee Break

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Operations

Marcy Reed, EVP, Business Operations, Engineering and Process
Welcome back from break everyone, I hope you enjoyed your treats. My name's Marcy Reed and the last time I had the privilege of standing before you I was the President of the Massachusetts jurisdiction, as Ken and Dean both mentioned. I've recently taken on a newly creative role as the Executive Vice President of Business Operations, Engineering and Process and that's a role that covers the full US business.

Over the last couple of years we've done a really good job strengthening the underlying business that we have the pleasure of running and I would say we're in good shape. Moving to a process centric model will allow us the opportunity to dig even further into finding improvements that will give us long term benefit for the business but also importantly our customers.

And my objective in fact out of the whole team is through this process centric model look deeply at the end to end processes that we have, employing activities for our customers from start to finish. Trying to really wring out efficiencies so that we can get after that allowed return that we've been talking about trying to get close to and also again meeting our customer expectations; so that's what I'm up to.

And as Dean mentioned earlier he talked about four converging trends that are affecting our industry today, one is ageing infrastructure, another was the environmental impacts that we're seeing, another around the falling - that precipitous decline of cost of renewables, and the last one is the changing customer expectations that we're seeing. And all of these trends are driving increased capital investment that you've heard from Ken and others. And along with increased capital investment of course you'll see increased O&M expense to support that underlying business.

So we look at this as our new normal, the world is changing and this is what we just expect to see going forward. And so what we're doing is trying to prepare ourselves to be strong and operate well within this environment.

To address this new normal the first thing we're doing is moving to this process centric model that I've mentioned. This means that we're looking holistically at how we're delivering services from beginning to end across the business which will break down those traditional siloes that you typically see in an organisation. And help us to better understand the cause and effect of our actions.

We're also looking at the broader industry and of course to our colleagues here in the UK to find and utilise best practices. When combined with better data analytics the start to finish review will drive decisions that will help serve our customers better which will lower costs and improve safety, which of course is always important to us.

So we've got nine major processes that we've identified so far and each begins and ends with the customer. They range from back office activities such as billing, all the way through to the core activities that we do that involve construction. And each of these processes has a dedicated process owner. Really focussing on these critical processes on behalf of our customers will address the bulk of work that we actually perform on their behalf. And I can tell you from my prior role and also here in my current role, there are places where we can improve for sure.

And as we do this we're going to make sure that all 16,000 of our employees are on board with our process journey and that they more importantly understand why, why we're on the journey and we'll work to help them develop capabilities across the organisation. By digging into all of the steps of the processes that are key to us, understanding why we do what we do and then focusing on the better data, key performance indicators and relentlessly seeking output based metrics, I know we'll be successful on this journey.

So I'll start with a few, basically I'm going to give you a few examples of how this is coming to life in the US. So I'll start with one example of a process that we have called Gas Aware to Repair, it is what it says on the tin. And it's important to us because it's a critical process that deals with customer safety and direct contact with our customers. This process is all about gas odour calls or you can them gas escapes here in the UK. Across our US business we respond to all odour calls that we receive. And in New York alone last year we responded to over 100,000 investigations for leaks. New York also has stringent regulatory requirements around response time. The good news is that we're meeting all of our targets, but it's important for us to continue to work at this so that we continue to do so, but also bring out some of the improvements that we can along the way.

So responding to a leak is actually a complicated activity, there are multiple internal hand offs and there are multiple customer touch points. And this obviously creates ample opportunity for us to be inefficient. By looking at this from start to finish and then streamlining the process we can provide a quicker, better service to our customers at a lower cost.

The process actually begins even before a leak is identified; we have a campaign that we call, Smell Gas, Act Fast. And it informs customers and the general public actually about gas safety, who to call when you smell gas and what to do until we show up. And when an odour is reported we need to respond efficiently both to meet our regulatory targets but also obviously to reduce risk.

Then following the inspection of a leak we would focus on updating our records accurately and on a timely basis, which will reduce future costs associated with bad data. We've got millions of records so I'm sure you can see how this is quite important to the process.

Finally if any follow up is required for that customer it's important for us to be flexible so that we can meet their expectations. In the past giving someone an 8 hour window might have been deemed adequate, but as you know in today's world that's simply not going to cut it and we need to make sure that we are really working on being the service provider that they need us to be. So by providing customers with tighter windows and ensuring that we do what we say we're going to do, we have a great opportunity to increase satisfaction, while also reducing costs associated with multiple visits, we're basically just going to do what we say we're going to do.

Now Ken said earlier that we're increasing our leak prone pipe replacement across New York and indeed across our US footprint and we continue to connect new customers to our system every day. The increased investment shows no sign of slowing down, so we're taking action to develop a long term sustainable platform that can support this level of growth. This is a big effort, it's called Gas Business Enablement, we kicked it off last year and there's a combination of people, process and system improvements around three primary areas that you can see on the slide.

Number one, managing our assets; it's supported by a single asset management system that will allow enhanced risk based decisions to better manage our assets. Number two, delivering our work, supported by a single work management system that will give us an integrated view of our work and allows to optimise our resources. And number three, the most important, serving our customers, supported by customer engagement solutions that will provide better visibility and information for our customers, the call centre and all of our employees. This initiative is another example of the start to finish work that we're doing and will reduce risk, improve performance and create a scalable, flexible platform for growth.

And then the last major process that I want to talk about is the development of a complex capital delivery function across the US. As you may know the UK developed a capital delivery function at the start of RIIO to enable the organisation to deliver large projects more efficiently. Through the first half of RIIO this has been a key factor in our ability to deliver £460m of savings for our customers, while maintaining world class reliability. Because of that success my colleague John Bruckner who's sitting over there in the back, is leading this initiative to develop a similar function in the US. In fact John has brought over the fellow who kicked it off for us here in the UK to help us set it up in the US.

The complex capital delivery function will focus on our largest projects which account for more than $1bn of spend every single year. This is another example of really digging in to understand the start to finish processes for our customers. And so far the team has made good progress in refining the structure, roles and responsibilities, systems and capabilities. We'll look for the function to be up and running by April and expect it will deliver our capital plans more efficiently at reduced risk and cost.

So I'll give you a couple of examples of what this capital delivery process change might look like. We've got a few really exciting complex projects that are in early stages of development. And in down state New York we have two that I'll talk about, the Metropolitan Reliability Infrastructure project and the North West Nassau project, both are included in our recent KEDNY and KEDLI filings. These are multiyear projects that will run out through 2021, 2022 so the start to finish process work that we're doing should actually have a pretty good bearing on the success of these projects.

On the left, the Metropolitan Reliability Infrastructure project is a major gas job in Brooklyn aimed at meeting the long term system demands in New York City while also increasing operational reliability. We're investing $250m over the next few years to install more than seven miles of 30 inch main in some of the most congested streets of the city and we'll complete the project in 2021.

On the right the North West Nassau project on Long Island is a six year, $280m project involving the installation of around eleven miles of 24 inch main and we'll be replacing older sections of the transmission pipe to ensure adequate system pressures and improved reliability in the system. So together you can see that these two projects account for more than $0.5bn of very good investment.

On the electric side there's a very exciting project that's getting underway as part of the clean energy ecosystem that's being developed in Buffalo. The Gardenville Substation project is in the early stages of replacing two existing 115KV substations into a single substation. It will connect 17 transmission lines across Upstate New York and supply Western Europe with 750 megawatts of power flow. It will not only provide an update to the aging infrastructure but it will also support future load growth and make the system more resilient.

This project is particularly interesting because of the changing energy mix in the region. As coal plants retire the substation will move hydro from Niagara Falls and Ontario Canada as well as wind from Western New York into the region. This clean energy will provide power to the Tesla Panasonic solar manufacturing plant; it's the largest solar panel and solar roof tile plant in the Western hemisphere. And while I was in Buffalo I got to see just how and how massive this plant is. And it all comes full circle, our REV Demonstration project that Ken spoke about earlier for neighbourhood solar will use panels just like those manufactured at this plant to serve 150 of our customers in the region plus three churches. I just love this project, it's a great story of revitalisation for the community but it also enables this State to attract new industries to the area.

So let me wrap up by saying this, I am so excited about where the US business is right now, the environment around us is changing and we're embracing it. Customers are being increasingly demanding and that's okay, how we execute on our work plan will drive both customer satisfaction and operational efficiency.

We're responding to all this by moving to the process centric model that I've discussed, really understanding the cause and effect of our actions and improving everything from start to finish. This approach is key to the success of our gas business enablement and complex capital delivery function as well as processes like the Gas Aware to Repair that I spoke about. And our workforce is calling for this too so of course they're quite excited to see it happen and I can't help but envision all of the positive things that will come from us doing this for both the company and our customers.

And now I will turn it to my friend Peggy Smyth our US CFO, voted best dressed of the team to talk about the financial implications of all this.

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Finance

Peggy Smyth, US Chief Financial Officer
Well thank you Marcy. And I joined National Grid about three years ago. And I've got to tell you it's been a very exciting three year journey. As you've heard we spend a lot of time reinvigorating our rate case filing process and getting our business focused on performance and we're just starting to see the benefits.

Now I'm really excited about where we're going as I look ahead, but before I get too far ahead of myself today there's three things that I'd really like to talk to you about. First is that we delivered on the commitments that we made to you. Dean has an expression that he uses, our say do ratio, we say what we're going to do and we do it. Second, is as you've heard that New York has a very progressive regulatory environment and that it's a very good place to do business. And lastly that our New York business is a very big part of our US business and it's growing strongly.

So if I look back and I look out in the audience I see many of you who were here two years ago when we sat in a room similar to this at our first US Investor Meeting in November 2015. So back then we were just starting to see the first rays of sunshine after our SAP system issues. And we set out a number of commitments to you and again going back to our, say do ratio, and as Dean had outlined before, we told you what we were going to do then and we're coming back to you today saying that we did them and New York has been an integral part in the success story that we've had.

Now as we look back at our New York performance over the last three years, now you can see from the chart here on the left that we've achieved year end rate base growth excluding working capital of an average of 6% a year to $10.4bn at 31st March 2017. And this has all been supported by discipline capital investment.

Now this rate base growth coupled with the impact of the new rate cases that we've had for KEDNY and KEDLI which went into effect on 1st January 2017 in our operating profit, they've resulted in really good growth in our achieved and turn on equity despite our out of date rate plans that we had in Niagara Mohawk. So as you can see on the chart on the right that we were able to achieve ROE of 8.4% as of 31 March 2017 up 17 basis points from where we were in December 2015, against an allowed of 9.2% for New York. We are committed to achieving at least 90% of our allowed returns in 2017 and 2018 across all of our US business and New York is a key part in helping us get there.

And we expect to continue to see improving returns in New York in the future, although the headline allowed returns obviously depends on the results of the outcome of the Niagara Mohawk rate case that Mike discussed earlier.

So now as a reminder the headline returns on equity in the US and in New York that we report on are lower than those in the UK and it's due to structural differences in the way they're calculated and the different regulatory constructs.

So in the US we have nominal regulation which benefits cash flow, while in the UK real regulation exists and it impacts growth, both of which are really important for delivering shareholder return in the long run and value creation. So this coupled with the higher equity ratios that we have in the US versus the UK mean that we have higher upfront cash flows in the US versus the UK, which is important as we need to maintain strong cash flows to help fund the growth in our business.

But the key obviously is to make sure that we're delivering as best we can from a performance perspective against all of our rate plans and New York is a critical part of this and we are confident that we can do it.

So overall the mix of cash and growth between the US and the UK businesses enables us to deliver both growth and yield, which are important for delivering shareholder value. And it demonstrates the benefits of the portfolio diversification that John highlighted earlier.

So now let's look to the future. We have capital investment agreed to December 2019 for KEDNY and KEDLI and the Niagara Mohawk case is progressing as Mike had elaborated before. What this means is that we have a significant agreed capital programme to deliver for the next four years, coupled with our projections beyond the end of our current rate plans with the reasons for the capital spend are those which Dean outlined earlier. They're going to give us around an 11% capex compound growth rate through to 2021.

Now our forecast capex plans result in an average rate base growth of over 7% for New York over the same period. So how does this capex growth result and translate into rate base growth so I'm going to walk you through this right now. So, and this is important, because from the time construction begins until the asset gets placed into service we earn a non-cash return which is called the allowance for funds used during construction or AFUDC. It's an agreed upon weighted average cost to capital. And this return is added to the assets book value and then once it's placed in service we earn a cash return on it until they cost of that asset is fully recovered from our customers.

Now to show how our capital investment flows into rate base I'm going to use the movement in New York's year end rate base excluding working capital changes from March of 2016 to March of 2017 as an example. So the first and most obvious building block here is the capital investment, $1.3bn in this case. Of that $0.2bn will remain in what we CWiP, call construction work in progress and CWiP is for our longer term and more complex construction projects that take more than a year or so to fulfil.

Next we reduce the rate base by 0.4bn for depreciation. Deferred taxes accounts for another $0.3bn reduction. The net result adds up to a $0.4bn or 4% increase in the year end rate base for New York year over year.

So providing a simple rule of thumb to translate the annual capital investment into the rate base growth isn't that simple and it's not straightforward because the amounts that go in to CWiP vary year over year and can be vary significantly. However, over the last five years our US rate base has grown to 40 to 50% of the annual capex spend.

So finally at 31 March of 2017 in New York we had roughly $1bn of assets outside our rate base. Now this doesn't mean these assets are not earning a return. Under the rate plans that we have assets outside of rate base primarily consist of CWiP the construction work in process that I talked about, which makes up the majority the balance and it's built up over time, and the regulatory assets yet to be recovered from our customers such as deferred environmental and pensions costs which Mike and Ken talked about earlier. They earn a non-cash return and the non-cash return is added to the assets and we get the recovery of those over the life of those assets and we're fully recovered from our customers.

So there's a number of moving parts that go into calculating rate base but the key is that our rate base is growing at a very solid 7% per year over the short term and the medium term, again 7% average rate base growth over the short and medium term.

So we have a lot of growth here so how are we funding this? And it's quite simple really that the US companies they issue fixed rate debt in US dollars to fund all the significant capex that we have. And we maintain roughly a 50/50 debt to equity ratio as part of our capital structure. Now all of our companies in the US have investment grade ratings in the A range and our rate plans mean that we have little to no exposure in interest rate movements as we're funded for the interest costs that we incur. So in the last year we've successfully issued $1.7bn of long term debt for KEDNY and KEDLI at an average coupon of 3.5%, securing more than $200m of interest rate expense savings for our customers over the next decade.

So this is really important for our customers many of whom live in impoverished areas. So a couple of weeks ago I went up to visit Ken's team in the Albany, New York area which is our State capital for the State of New York. And I got to meet with many of our crews and our customers there and you see just how hard our customers are working to make ends meet day in and day out. So every dollar saving that we can deliver is really important for them. So the debt issuances, like the ones that I just talked about they're a major milestone in our financing strategy to issue low cost debt and provide savings to our customers. They were achieved through the scale that we have across our global organisation with a large Group treasury function supported by US treasury team.

So looking forward in the US we expect to issue about $1bn to $1.5bn in debt in the next 12 months including an issuance expected in New York.

So the growth in the capital investment and the rate base coupled with the new rate plans in place for a full year for KEDNY and KEDLI they'll results in a significant increase in US GAAP adjusted operating profit for the current financial year. It's likely to be around 8% higher than the $916m that we achieved last year.

Now this year on year increase is slightly higher than normal as we're still playing catch up in our rate filing plans. But as we move forward we expect this level of growth to be more reflective of the rate base growth of around 7%. However, the key to maintaining year over year strong growth is ensuring that we operationally deliver on what we have in our rate plans.

So now as you all know unlike other US utilities we report externally under IFRS and with the rates are set under US GAAP and there are significant differences between the accounting for US GAAP and under IFRS. And unfortunately sometimes the US GAAP results don't and the performance doesn't translate lineally into that for IFRS in a linear fashion. IFRS accounting is more closely aligned to cash than US GAAP than regulatory accounting is and that can lead to some significant differences between the two. And the volatility is driven by two key items, levelisation and commodity timing, now I've used the rate agreement for KEDNY on a calendar year as an example here to show the differences between the two accounting schemes.

So what is levelisation, well for those of you who aren't immersed in US regulatory speak it's actually quite simple, it's simply the way that customer bills are phased and customer bill increases are phased in over a multiyear settlement period to minimise the first year impact. It's a particular feature of our KEDNY and KEDLI rate plans and depending on how it progresses will be a feature in our Niagara Mohawk plans as well.

So as an example as part of our KEDNY agreement instead of a 20% plus increase in customer's bills in year one it's been spread about to around 9% per year. So under US GAAP we create a regulatory asset for the deferred part of the bill in year one which is released over the three years. Now as IFRS follows the cash there's a negative impact versus our GAAP in year one but a positive impact versus GAAP in year three.

So other features that create accounting differences include commodity timing, which isn't included in the chart here, but it's the time between when we supply gas or electric to our customers and being able to pass on any increases or decreases in the cost of it. So as a guide we've seen this fluctuate, the commodity timing fluctuate between minus 10 and plus $70m over the last three years.

And finally there are other items that are differences between US GAAP and IFRS such as environmental or mediation and costs of removal, they're more consistent year over year and due to the differences in the different accounting frameworks IFRS to US GAAP they typically result in higher IFRS earnings year over year than we would have in GAAP. And for KEDNY these items increase IFRS profit by a little less than $100m each year. So a typical year would be more like what you see here for calendar 18, with IFRS earnings higher than US GAAP. Over time IFRS and US GAAP earnings roughly approximate one another but the key point here is that we are seeing strong growth in both our IFRS earnings and our US GAAP earnings over the short and medium term.

So now let me take a broader view and go to the whole of the US organisation. So New York as you've heard, represents about half of our US rate base as of 31 March 2017. And over the last couple of years we've consistently talked about National Grid looking to deliver growth of between 5 to 7% with the US targeting the higher end of that range.

Now as you can see from the expected GAAP capital investment chart here, we're consistently forecasting to spend in excess of $3bn a year consistently going forward through 2021. And we have over 80% of that already in our rate plans or in the NIMO submissions that Mike just talked about.

Now with the way our rate plans work we have certainty over a base level of investment following each new rate plan. However we know that to complete all the work that's necessary in the future we need to file more rate cases and ask for higher capital allowances.

So for example our agreement from Massachusetts Electric which came into effect in 2016 it increased our capital rate plan to $249m each year. But our forecasts for the future show that we're going to need more than this. So the gap between our current allowed and our forecast is shown here in the blue section on the chart on the left.

Now while the $249m continues until we file new rates and it's included in the purple block here through to 2021. Now if we're successful in our rate filing programme and the delivery of our capital plans it is driving an average annual rate base growth of around 7% to over $25bn by 2021. Again it's a rate base growth of over 7% to $25bn by 2021 for US regulated businesses.

Now at the moment we don't have complete regulatory clarity on our capex forecast, but when the Niagara Mohawk case and the rates are agreed at the end of the calendar year we'll know the vast majority of our funded spend out to 2021.

So how does the increase in the capital investment and therefore the rate base affect the income statement? In the longer term this should be a direct correlation between asset base growth and the operating profit. However, over the next few years we're aiming to grow our GAAP operating profit by around 10% and our IFRS operating profit by around 7% due to the differences in the accounting that I just talked about. Now it's slightly higher than our target for rate base growth due to the catch up in the rate filings that we discussed just now.

Now as we continue the wider rate filing programme with Massachusetts Gas and Rhode Island businesses all expected to file cases in the next few months we are driving operational efficiencies to ensure that we can achieve to as close to our allowed returns as possible for all of our operating companies. And we're doing this through two means, first is just keeping a really firm grip on our cost base and second is you heard outperforming on the limited incentive options that we have in New York.

So as I've just stated we have an ambition to grow average rate base by around 7% to 2021. Now to achieve this and maintain a returns performance of over 90% of the allowed we need to grow our GAAP operating profit by around $150m each year through to 2021. And we are well positioned to achieve this through the activities that Dean, Ken and Marcy just talked about this morning. And I am confident that I'm going to be able to stand here again in another short time and say that we have delivered again on our say do commitment to you once more.

So in summary first is we've delivered on the commitments that we made to you two years ago with consistent performance in our New York operating companies. And we have the new KEDNY and KEDLI rates in place and we have more coming in the beginning of April next year with the Niagara Mohawk case and our ability to increase our percentage of allowed returns is increasing along with our operating profit.

Second, that New York has one of the most forward looking US regulatory regimes, it's a great place to do business and we have a very strong pipeline of needed capital projects that are going to deliver future growth across New York and the wider US business going forward.

And lastly that New York is a big portion of our US business with a lot of value creation and potential and I personally am very proud and excited to work in the company. So thank you for your attention this morning and I'm now going to pass over to John for just some closing remarks.

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Closing Remarks

John Pettigrew, Chief Executive
Thank you Peggy. So let me just summarise the key takeaways from this morning. So as you heard our US business is in great shape and the New York jurisdiction is a significant reason for that. So all four businesses in New York will be operating under new rates by April next year, as we reported at year end KEDNY and KEDLI have already started to contribute to the improved performance and the NIMO filing process is very much on track.

Across our US business we're taking actions to operate more efficiently and ensure we are well positioned to meet the changing needs of our customers. The US industry trends are favourable for us; we have a highly experienced diverse team to drive the business forward.

So when you put all of that together we're confident that we're able to deliver strong rate base growth whilst continuing to drive improvements in returns. As Peggy said we delivered on the commitments that we made in November 2015 and I'm confident we can deliver on the new targets we've set out today.

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