The NY REV Ratemaking Order 19 May 2016

NOTES

catherine.mitchell@exeter.ac.uk

IGov New Thinking For Energy

University of Exeter

EPSRC Engineering and Physical Sciences Research Council

OVERVIEW to NOTES taken of ORDER

- Needs to be complicated because transforming energy regulation will be complicated – but IT IS COMPLICATED !!!!!
- This is a NOTES powerpoint of the Order's 170 pages – this may or may not be useful to others – has repetition
- Page numbers refer to the Order page numbers not web page numbers
- On whole, these are direct quotes copied and pasted from Order to slide – to find exactly where from do: control F
- NY State and GB regulation is different but still relevant to each other

Understanding Orders, 'Staff' and Stakeholders

- An Order is a Commissioners decision document
- 'Staff' is the short-hand term used for proposals given by Staff of the Public Service Commission, for example in the White Paper on Ratemaking https://www.energymarketers.com/Documents/NY_REV_Track_2_paper.pdf
- Comments are then given on WP by stakeholders on – all of which are on the NY REV website http://www3.dps.ny.gov/W/PSCWeb.nsf/All/CC4F2EFA3A23551585257DEA007DCFE2?OpenDocument
- The Order then presents the conclusion of the Commissioners who take account of 'Staff' and comment suggestions / arguments

The Big ? To be answered: does the NY REV enable this?

- The public interest is best served when utilities' economic objectives are decisively and substantially aligned with public policy and consumer interests desired policy objectives and create the appropriate financial inducement for utilities and markets to pursue them. **The critical challenge that REV creates is to develop the regulatory environment in which a utility will naturally and aggressively pursue system solutions that simultaneously create consumer benefit and increase the utility's earning opportunity.** For this to occur effectively, the approach of tying innovative third-party solutions that provide customer value to earnings that are comparable to or superior to traditional earnings, must mature to be ubiquitous within the utility financial, operating, and planning model. (P9 Order May 2016)

The Order (and the White Paper) are useful critiques of traditional cost-of-service ratemaking.

- The White Paper analysed the ways in which the traditional cost-of-service ratemaking paradigm incentivizes utilities. The paper concluded that while cost-of-service regulation has served adequately in the context of a centralized system with steadily growing load, it fails to provide incentives to innovate and to adjust to rapidly changing market, technology, and environmental factors. 9 White Paper, p. 27.
  - The overall intention of Staff's package of recommendations is to "offer utilities opportunity to thrive in a changing environment if they succeed in meeting customer-oriented objectives." Case 14-M-0101, Staff White Paper on Ratemaking and Utility Business Models (White Paper), filed July 28, 2015. https://www.energymarketers.com/Documents/NY_REV_Track_2_paper.pdf

The White Paper began by articulating a set of foundational principles to guide the development of a new ratemaking model:

https://www.energymarketers.com/Documents/NY_REV_Track_2_paper.pdf

- Align earning opportunities with customer value
- Maintain flexibility
- Provide accurate and appropriate value signals
- Maintain a sound electric industry
- Shift balance of regulatory incentives to market incentives
- Achieve public policy objectives

Order part of wider co-ordinated REV effort (p5

http://www3.dps.ny.gov/W/PSCWeb.nsf/All/CC4F2EFA3A23551585257DEA007DCFE2?OpenDocument)

- The development of a benefit-cost analysis framework;
- The development of an approach to calculate the full value of DER to the distribution system;
- The recommendations of the Market Design and Platform Technology (MDPT) working group, which will inform Staff's guidance for utility Distributed System Implementation Plans (DSIPs);
- On-going inquiries for improved rate design for low-income customers;
- The review of the New York State Energy Resource and Development Authority's (NYSERDA) Clean Energy Fund filing, and Clean Energy Standard;
- On-going consultant studies being undertaken to 1) examine the benefits and costs of net energy metering (NEM), and 2) develop approaches to appropriately value the multi-sided market aspect of the modern utility model as part of ongoing regulatory and pricing reform; and
- REV demonstration projects.

Example of Integration: NY Clean Energy Standard 2016

- Four integrated principles for implementation
  - targets will be clear and ambitious. The 2015 New York State Energy Plan includes a target to meet 50% of the State's electric consumption with renewable resources in 2030, as well as targets of a 40% reduction in greenhouse gas emissions from 1990 levels and a 600 trillion Btu increase in statewide energy efficiency.
  - revise the policies and practices governing how we regulate utilities and their business practices, impose obligations, and oversee retail market design, including rates and prices for electric service, to make certain that our regulatory practices are consistent with the changes that need to occur, given the 4 basic priorities of utility regulation:
    - operational efficiency,
    - dynamic efficiency (i.e. forward-looking investment efficiency) ,
    - consumption efficiency,
    - and policy objectives.
  - Re-examine how we use the tools of incentives and financial support for clean energy technology and markets to reduce costs, drive scale and reduce barriers to entry.
  - the State will lead by example in its participation as an energy consumer and provider
  - http://www3.dps.ny.gov/pscweb/WebFileRoom.nsf/Web/44D3BA551B9EC7D185257FAA006B1E54/$File/pr16023.pdf?OpenElement

ORDER IN ONE SLIDE: Revenues, monopolies, competition (p45-6)

- The expanded role of utilities is marked by new obligations and opportunities to facilitate the multi- directional transactive retail electricity market.
- A number of proposed modifications to ratemaking conventions were identified and discussed in the Staff White Paper and party comments. The proposals generally fall into three categories.
- First, and at the heart of REV, is the development of new transactive-based revenues between and among DSPs, end-use consumers, and third-party market participants. These revenue opportunities reflect the nascent market and will evolve over time (PSR).
- Second, in order to spur this evolution, Staff proposed earnings adjustment mechanisms (EAMs).54 EAMs are an expedient device that can work within the current structure, and are framed by regulatory determinations that must also evolve and will eventually be superseded by market opportunity.
- The third category of proposals includes changes in current rate setting mechanisms to eliminate unintended consequences and to achieve policy objectives. These include changes to the so-called “clawback” mechanism, earning sharing mechanisms, and the duration of rate plans.
- A fourth type of new earning opportunity, which was not discussed extensively in the White Paper or in comments, has already been adopted. This is the rate treatment of non-wires-alternative (n/w/a) programs such as Con Edison’s BQDM initiative. Until platform markets are fully developed distinct n/w/a projects are a means by which third-party investment can be integrated with utility systems to improve efficiency and reduce bills. As we did in the BQDM proceeding, we expect to approve n/w/a projects that will result in customer savings, with earnings opportunities for utilities that are commensurate with or superior to earnings that can be achieved through traditional investments.
- All of these potential changes can coexist in an evolving regulatory environment, and the Commission must continuously balance certainty and continuity with the recognition that markets may support the modification or ultimate elimination of individual components. This is particularly true in the case of EAMs.
- **we will adopt a process-based approach for approving new charges and revenues, which will evaluate proposed utility activities on an individual basis (p47) worried about this - regulated utility activities – competitive functions can be offered on an unrestricted basis – how will the utility NOT undermine this ? – have put in a clause which says if they don’t do enough then they will intervene again ----**

3 principles of reform of ratemaking (p2)

- Three principles of the Framework Order are particularly relevant to the reform of ratemaking.
  - First, the unidirectional grid must evolve into a more diversified and resilient distributed model engaging customers and third parties.
  - Second, ensuring universal, reliable, resilient, and secure delivery service at just and reasonable prices remains a function of regulated utilities.
  - Third, and critically important to this order, the overall efficiency of the system and consumer value and choice must be improved by achieving a more productive mix of utility and third-party investment.

White Paper discussed 3 categories of reform but confusing / unclear because regulatory monopoly requirements come under ‘market orientated’ and other changes appear to come under 2/3 headings:

- Market-orientedtility business models ie PSR and EAMs
- Incremental reforms to traditional utility revenue models (ie Data Access (and charging), Clawback Reform, Standby Services, Opt-in rate design, Large Customer demand charges, Scorecard metrics, Mass market rate design)
- Rate design changes to provide accurate value signals while meeting public policy objectives (ie Data Access (and charging), Clawback Reform, Standby Services, Opt-in rate design, Large Customer demand charges, Scorecard metrics, Mass market rate design)

The NY REV Approach (p7)

- Taking the difficulties of large-scale incentive mechanisms into consideration, we adopt an approach that uses outcome-based earning opportunities, targeted toward results that will create consumer savings and enable and build market activity, with an assumption that the need for regulated incentive mechanisms will be continually reviewed in light of progress in the development of transactive markets.
- While regulated performance incentives will play an important role in establishing markets, over time revenues will be earned increasingly from the facilitation and operation of more transactive retail markets. The platform function of utilities in a mature distribution-level market will generate revenues from third-party market participants. These revenues can be used both to offset traditional revenue requirements.

Flexible to change p21

- The structures put into place in this order will be adaptable to the pace established by market participants
- [this is because the DSP is based on outcomes and therefore is more flexible to change to meet those outcomes]

Slowly, slowly approach where building blocks are established but DPS retains right to speed things up (p22)

- While we will remain pragmatic in our approach, we also emphasize that neither regulators nor industry participants should rest on an assumption that regulation and business models always need to adapt slowly and modestly to consumer demands and technology innovation. As the Framework Order explained, the need to develop a demand-responsive, climate-friendly, information-centered electric system does not afford us with the luxury of time. With billions of dollars of infrastructure investment impending, as well as carbon reduction requirements and rapid improvements in customer-side technology, the historic pace of regulatory change is inadequate. Recent developments in this and other industries demonstrate that slow and deliberate progress is not always an option and may no longer be acceptable

Strong lobbying for the Commissioner to deal with p 36

- Intense lobbying by those who want little change versus those who want fundamental restructuring:
  - ‘Just as many stakeholders argue that we retain the status quo, there are other representatives of consumers and new market entrants that are impatient for the future and are concerned that utilities are not up to the task of facilitating it’.
  - ‘[for example] In the process leading to the Framework Order, some parties argued that the DSP function should be performed by an independent entity, because utilities would have inherent self-interest in promoting their own investments’.
    - The Commission found that utilities should perform the DSP PSR function due to operational and planning practicalities, but that several protections should be put into place: utilities are generally prohibited from investing in DER (with exceptions);
    - Interesting arguments: on one hand, depressing for those of us who want to move forward but also, on the other hand, Commission sets out good arguments for working out if there are overarching system benefits

NY REV approach – half way house? A fudge? Too this or that? P39 / p49

- For this reason the approaches we are taking in this order strike the balance of taking immediate steps to unlock market forces and technology innovation while preserving the ability of utilities as regulated monopolies to maintain stable and reliable electric service for all customers as well as retain their opportunity to earn a fair return.
- Aligning financial incentives with policy goals is the best way to assure the furtherance of these goals. Where possible, markets and positive financial incentives – rather than direct regulatory mandates with negative consequences - should be the primary drivers of the countless implementation actions, decisions, and initiatives needed to transform the industry. We therefore determine that the direction of rate regulation is towards aligning financial incentives with REV objectives by combining discrete reforms to conventional ratemaking with new earning opportunities that better align the utility and consumer economic welfare interests.

Order clear on problems of traditional framework for rate-making, particularly dynamic efficiency (p30) and need for new incentives

- REV contemplates expansion of system resources owned by customers and third parties, often as alternatives to traditional utility investments.
- REV also contemplates utilities relying on DER through procurements that would traditionally be accounted for as operating expenses. Reliance on DER also reduces the direct control that utilities maintain over their systems, which can create the perception of increased risk.
- Under traditional ratemaking, DERs encounter twin barriers: they displace the growth of utility rate base, and they add to operating expenses.
- Irrespective of capex versus opex, more important bias is utilities will prefer to spend their own money that they can then control rather than bring in 3 rd party money (page 32)
- Information assymentry (page 33)
- Inertial tendencies - the fundamental changes occurring in technology, markets, and consumer demands create a greater risk to the State from ignoring these factors and straining to maintain existing systems (page 36).

Several things coming together to make the sum of the NY REV incentives – not just one incentive – multiple ones and multiple enabling environments / revenue streams p40

- In sum, along with the other complementary changes we are requiring in utility planning and information sharing, the pricing of distributed resources, and retail market reform, the ratemaking reforms are designed to ensure that rather than resisting third party investments and operational and market changes that increase consumer value and the achievement of critical State economic and environmental goals, New York utilities will embrace these changes as consistent with and vital to their own financial interests.

Move to [energy] platforms just like other industries 38-39

- The modernized role of DSP provider brings the utility business model closer to the platform model that is increasingly common among other industries, including telecommunications, financial markets, and internet services.47 Platform economics promotes new business orientations and pricing structures in which many of today's most successful businesses thrive as intermediaries, through which market participants interact across their systems. Multi-sided platforms create a structure for bidirectional (or multidirectional) transactions and exchange of information, where the lines between producer and consumer may be blurred but positive network externalities are created and innovation results in greater capital productivity.

Importance of outcome based incentives to underlying logic of REV (p61)

- Commissioners agree that outcome orientation will tend to be the most effective approach to address the mismatch between traditional revenue methods and modern electric system needs.
  - First, a central function of REV is to integrate the activities of markets, including customers and third-party DER developers, into an optimized distribution system. By definition, utilities will not have control over the market activities of customers and third parties, even though these activities in the aggregate will be critical to the optimal performance of the system. Utilities will enable markets to drive outcomes. Limiting shareholder incentives to items under utility control would omit a wide range of desired outcomes.
  - Second, outcome-based incentives encourage innovation by the utility, as opposed to merely conforming to plans approved or ordered by the Commission. Several parties commented that utilities should simply be ordered to implement specific tasks, with no need for incentives. Other parties argued that utilities should not be rewarded merely for performing what is expected of them. These arguments assume that regulators are in the best position to know precisely what actions are needed to achieve policy outcomes. In fact, the optimal role of regulators is not to dictate program terms but rather to set policy and ensure that results are just and reasonable. A construct in which regulators presume foreknowledge of how innovation must occur is antithetical to the premise of REV. Outcome-based incentives will allow utilities to determine the most effective strategy to achieve policy objectives, including cooperation with third parties and development of new business concepts that would not be considered under narrow, program-based incentives.
  - Third, outcome-based incentives encourage an enterprise-wide approach to achieving results. Targeted program-based incentives are appropriate for discrete and clearly defined tasks, such as testing for stray voltage or replacing a set number of miles of leak-prone pipe. Program-specific incentives with their own metrics, however, inherently limit the scope of the company's efforts and encourage a siloed management approach. Outcome-based incentives are appropriate where the programmatic inputs are not simple to isolate, and where the beneficial outcome is influenced by a holistic approach and a range of company activities that are planned to jointly influence the outcome along with customers and third parties. Ie peak reduction (p 63)
  - Fourth, regulation should seek outcomes that simulate competitive market behaviour where possible and beneficial. Financial results for companies engaging in unregulated markets are determined by a wide range of variables, many of which are beyond the company's control. Attribution of results to company efforts is important for internal planning, but the marketplace is ultimately indifferent to the merit of the company's efforts or degree of control. This is in contrast with cost-of-service ratemaking, which is directly tied to the company's efforts. Whether a complete shift away from cost-of-service would improperly expose utilities to financial risk is a question that is not raised here, because there is no such proposal at this time. Outcome-based incentives base a portion of the utility's return on market outcomes, while maintaining a reasonable overall return as an end result. Ie OBR better simulating utility regulation in markets
  - Finally, as Staff observed in the White Paper, having utility earnings affected by market outcomes over which they have limited influence is not a new principle.

Avoidance of counterfactuals p65

- Set fixed targets etc – reduces (my word) gaming

Within Order: 4 ways to make money (p2)

- Utilities will have four ways of achieving earnings:
  - traditional cost-of-service earnings;
  - earnings tied to achievement of alternatives that reduce utility capital spending and provide definitive consumer benefit (Platform Service Revenues);
  - earnings from market-facing platform activities;
  - transitional outcome-based performance measures.
    - These additional measures are collectively intended to create a regulatory environment where utilities can create shareholder value, comparable to or superior to conventional investments, by integrating third-party solutions and capital that improve the efficiency, resiliency and flexibility of the physical networks, reduce consumer total costs and achieve the State's policy objectives. P2 or may order

In brief – see slides below for details - This Order adds these ways of making money p24-7 in addition to traditional cost of service

- Regulated earning Ops
  - PSRs
  - EAMs
    - System efficiency etc
- Competitive Market Based Earnings
  - Unregulated utility subsidiaries are authorized to engage in competitive value-added services. To engage in these activities the utilities must have in place standards of conduct to avoid affiliate abuse, to be monitored by the Commission.
- Data Access (and charging)
- Clawback Reform
- Standby Services
- Opt-in rate design
- Large Customer demand charges
- Scorecard metrics
- Mass market rate design

Platform Service Revenues (p12)

- The White Paper recommended a transition toward Market-Based Earnings (MBEs) for utilities, to complement conventional cost-based earnings and, eventually, to provide the bulk of utilities' financial incentives. (The concept of "MBE" as proposed by Staff is combined, in the discussion below, with Platform Service Revenues (PSRs). In order to avoid confusion, this order will use the term "PSRs" throughout.)
- PSRs would be earned by utilities through their provision of Distributed System Platform (DSP) services. Increased PSRs would encourage utilities to support access to their systems by DER providers, and offset required base revenues derived from ratepayers.
- While the White Paper acknowledged that this transition would take a considerable length of time, it recommended that demonstration projects and other initiatives should be oriented toward developing PSR opportunities. The ultimate purpose of the transition is to create "a business and regulatory model where utility profits are directly aligned with market activities that increase value to customers."

Specific PSR Earning Opportunities p24

- Platform service revenues are new forms of utility revenues associated with the operation and facilitation of distribution-level markets.
- In early stages, utilities will earn from displacing traditional infrastructure projects with non-wires alternatives.
- As markets mature, opportunities to earn with PSRs will increase.
- A process is established to facilitate the approval of products and services that could generate PSRs, and for the pricing of those services and the allocation of revenues between ratepayers and shareholders.
- This process will distinguish between
  - (a) services that the Commission will require the utility to provide as part of market development;
  - (b) voluntary value-added services that are provided through the DSP function that have an operational nexus with core utility offerings; and
  - (c) competitive new services that can be readily performed by third parties, including non-regulated utility affiliates, and should not be offered by regulated utilities.

PSRs will develop once EAMs create the building block of markets p24

- Platform service revenues (PSR) are a new form of utility revenues associated with the operation and facilitation of distribution-level markets. Utilities will earn from displacing traditional infrastructure projects with non-wires alternatives in the early stages.
- As the DER markets mature, opportunities to earn PSRs will grow. The order set up a process to facilitate the approval of products and services that could generate PSRs that will distinguish between three classes:
  - Things the PSC requires utilities themselves to do;
  - Voluntary value-added services provided through the distribution system platform (DSP) function that have an operational nexus with core utility functions, and
  - New competitive services that will be left to the market only.

Criteria for PSRs p48

- Platform service revenues: Platform service revenues (“PSRs”) are new forms of utility revenues associated with the operation and facilitation of distribution-level markets. A process is established for the approval of products and services that could generate PSRs, and for the pricing of those services and the allocation of revenues between ratepayers and shareholders.
- This process will distinguish between monopoly services and services that could be performed by third parties.
- A set of criteria is established to consider when potentially competitive services should be allowed. The criteria are:
  - whether the service facilitates the growth and operation of markets;
  - whether there is already a third party market for the service that adequately serves all sectors of the market;
  - whether utility economies of scale and/or existing utility expertise are likely to result in cost-effective stimulation of the market;
  - whether utility provision of the service is likely to prevent other providers from entering the market; and
  - The extent to which a utility has proposed placing its own funds at risk.

Approval for PSR – seems cumbersome? P48

- Approval Process for Platform Service Revenues
  - All utility charges and revenues must be authorized by tariffs. A utility filing for a new PSR must include the following items, which are explained below:
  - i) a description of the product or service;
  - ii) a description of how the product or service meets the criteria for approval – ie has to be a monopoly – cannot be a competitive function;
  - iii) a description of the method to be employed to price the product or service;
  - iv) a proposed allocation of the revenues between ratepayers and shareholders; and
  - v) proposed deferral accounting and reporting requirements to monitor activity until rates are reset.

Utilities will be allowed to sometimes be party to PSR competitive functions (p49)

- The criteria that will be considered in approving potentially competitive services will be (a) whether the service facilitates the growth and operation of markets; (b) whether there is already a third-party market for the service that adequately serves all sectors of the market; (c) whether utility economies of scale and/or existing utility expertise are likely to result in cost-effective stimulation of the market; (d) whether utility provision of the service is likely to prevent other providers from entering the market; and (e) the extent to which a utility has proposed placing shareholder funds at risk

Benefits of PSRs (p41-2)

- Numerous benefits of PSRs p41
- Facilitating market entry and unlocking potential system value: The DSP will enable market entry for DERs by reducing transaction costs. Utilities' opportunity to earn from an increasingly wide use of the platform will provide an incentive to make access to the platform and to customers as simple as possible. This in turn will enable new system value to be created by DERs.
- Offsetting and allocating costs of DSP capital and operating expenses: Charging those who utilize the platform will allow sharing the platform costs among participating customers and the general customer base, while total system costs are reduced.
- Providing incentives for utilities to innovate and serve REV objectives: Effective operation of the platform will advance cost-effective market activity while enhancing utility earnings and serving the public objectives of REV. Utilities will have an incentive to expand market offerings and platform utilization both through their own initiatives and through accommodation of innovations in the market.
- Supplementing utility revenues as third-party market share increases: Utility business models must evolve to embrace market and technology changes that would otherwise be viewed as competitive threats. This will be enhanced by the opportunity to earn PSRs.
- Reducing uneconomic grid defection: PSRs will encourage utilities to work with DER providers to produce grid-connected values for customers greater than values achievable from grid defection.

Revenue from monopoly and competitive services in PSRs (p45)

- The distinction between monopoly and competitive services is critical in the ratemaking treatment of new revenue sources. Earnings opportunities from competitive functions, according to Staff, should depend on the extent to which utilities place shareholder funds at risk. Revenues from monopoly functions should be considered on a par with other revenues associated with conventional utility functions, subject to the hybrid of incentive and cost-of-service rate treatment described in the discussion of outcomes-based ratemaking. For example, natural gas delivery companies earn revenues from selling pipeline capacity that is not needed to serve their native load. Because these revenues derive from ratepayer funding of a monopoly service, they are allocated principally to the benefit of ratepayers, with a percentage allocated to the utility as an incentive to maximize the revenues. In New York, revenues from these capacity sales are shared, with 85% of proceeds to ratepayers and 15% to shareholders, although there is no single allocation formula for all types of shared revenues.

Earnings Adjusted Mechanisms (p53)

Staff Prioritised Outcomes	Staff Implementation issues
Peak reduction: oriented toward near-term system savings and development of DER resources;	Existing rate incentive measures should be retained but should be reviewed for their continued usefulness;
Energy efficiency: oriented toward integrating efficiency with demand reduction and increasing the total amount of efficiency activity;	New EAMs should be positive-only in direction, with the exception of customer engagement and interconnection, which should be symmetrical;
Customer Engagement: oriented toward near-term activities to educate and engage customers and provide access to data;	Positive-only EAMs in the longer term should be tied to a bill impact metric;
Affordability: oriented toward promotion of low-income customer participation in DER, and toward reduction in terminations and arrearages; and	EAMs may be oriented toward outcomes that utilities can influence and need not be confined to activities over which utilities have direct control;
Interconnection: oriented toward increasing the speed and affordability of interconnection of distributed generation.	Most EAMs should be on a multi-year basis rather than annual, to allow time to develop desired outcomes;
	EAMs should be compensated or charged via accounts that are reconciled in rate cases;
	All utilities should have EAMs for the same categories, while details may vary among utilities; and
NB EAMs are intended to be near-term requirements to enable distribution level markets to function; and a bridge until a more market-orientated time	Total size of revenues at stake need to be determined on a case by case basis.

EAM (Performance based mechanisms) for system wide functions NOT ONE OFFs- and a bridge until other market based functions kick in with PSRs

- Earning adjustment mechanisms will offer utilities money for meeting goals such as cutting peak demand, boosting overall efficiency, engaging customers, easing interconnection of DERs and affordability.
- Performance standards have been a fixture of the Commission's regulatory strategy for many years. They are typically negative adjustments for failure to meet standards related to basic service – reliability and customer service – or specific identified program needs, e.g. stray voltage inspection. The size of total potential adjustments is large in terms of basis points,although adjustments that are actually experienced tend to be a small fraction of the total potential. In practice, these standards have a deterrent effect against poor service (page 58).
- These measures vary among utilities. Total potential negative adjustments range from a low of 139.6 basis points to a high of 262.5. Total positive adjustments including earning sharing mechanisms range from a low of 65.8 basis points to a high of 120.3. [100 basis points is roughly related to 2.4% of delivery rates] See, White Paper, Appendix C (page 58).
- On average over the past ten years only 3 basis points have been incurred annually by each utility on the negative side, with a maximum 38 basis points by any one utility in one year. (page 58)
- Staff's proposal to create new incentive measures is directed not to traditional basic service but to new types of performance expectations. Some of these new expectations run counter to conventional methods of operation and, importantly, also run counter to the *implicit* financial incentives that are embedded in the cost-of-service ratemaking model. If cost-of-service calculations are to remain the basis of utility rates for the foreseeable future, then creating new earning adjustment opportunities are both a fair and a necessary means of promoting change (page 59)
- NB NOT one off projects like the BQDM project, system wide issues –

EAMs – positive, negative and bi-directional incentives measures p66

- Commissioners decide REV will start of with positive output measures because EAMs are new measures , but if don't work may consider negative or bi-directional (ie utilities get to earn higher rates of return if they do the 'right' thing)

EAMs: What is at stake here? Not much at the moment p 67

- *Size of incentives.* Staff proposed that the size of EAMs should be negotiated in rate cases, responsive to the various factors that define an individual utility rate plan. Proposals for the size of incentives will be evaluated within the larger picture of how the incentives impact the overall financial picture of the utility, including with respect to platform service revenues and other earnings opportunities newly available, and the impact to ratepayers. Rate cases should review the full picture of earning opportunities to establish an appropriate EAM amount for utilities.
- Review of other jurisdictions illustrates a wide range of size of performance incentives.In Illinois' legislatively defined program, 0.38% of utility revenue is at stake in a negative-only direction.73 In the United Kingdom's RIIO program, 6% of revenues are at stake in a quasi-symmetrical system.Current incentives in New York, described above, range between 2.77% and 5.69% of delivery revenues on the negative side and between 1.33% and 2.49% on the positive side. These figures reflect percentages of delivery revenues. Stated as percentage of total bills, the ranges are 1.13% - 2.59% on the negative side and 0.49% - 1.03% on the positive side.
- To support utility rate case proposals and our evaluation of those, we provide guidance for how large EAMs can be. As initial bounds on the first round of REV initiated EAMs, the maximum amount of earnings should not be more than 100 basis points total from all new incentives. The value of individual EAMs may vary based on the underlying activity, its anticipated cost, value to customers, and relative degree of opportunity in the particular utility territory.
  - Using statewide averages, 100 basis points are equivalent to 2.4% of delivery rates or 1.1% of total bills. The total relative number of basis points can be higher if higher ratepayer value is demonstrated through the benefit cost analysis associated with the incentive (for example, this may be the case with system efficiency).

Specific earning opportunities (1)

- *Peak reduction/system efficiency*. Staff proposed an EAM to reduce peak demand on the bulk system by approximately 14% over a five-year period, which would require reducing the load associated with the average load of the top 10 peak days of the calendar year to ultimately reduce the top 100 peak hours. (positive only EAM) p71
  - Commissioners proposed, rather than a metric limited to peak reduction, to adopt a system efficiency EAM oriented toward both peak reduction and load factor improvement.p 73 without target p75

Energy efficiency (2) p80-2

- Staff proposed linking an energy efficiency metric directly to achievement of peak reduction targets, by requiring that a positive EAM for peak reduction can only be earned if all of the energy efficiency targets are also achieved. In addition, Staff proposed that at least 10% of the incremental peak reduction needed (i.e. in addition to current programs) should be achieved through energy efficiency. This would provide an incentive for utilities to exceed their efficiency targets (p 77).
- Our approach to an EAM for energy efficiency is informed by the recent orders approving Efficiency Transition Implementation Plans (ETIPs, *Case 15-M-0252, In the Matter of Utility Energy Efficiency Programs, Order Authorizing Utility-Administered Energy Efficiency Portfolio Budgets and Targets for 2016 – 2018 (ETIP Order)(Issued and Effective January 22, 2016*). and a Clean Energy Fund (CEF)87; by recent trends in evaluation, measurement and verification of efficiency achievements (EM&V); and by the assumed contributions of energy efficiency in the development of a Clean Energy Standard. (page 79)
- In the CEF order, a Clean Energy Advisory Council (CEAC) was established.94 The CEAC will recommend a target or set of targets that are tied to State Energy Plan and Clean Energy Standard goals, and toward reducing the cost of achieving these goals through cost-effective and market-initiated efficiency. The Commission will adopt a target or targets following recommendations from the CEAC, incremental to ETIP targets, which will support an earning opportunity metric for utilities.95 One of the metrics for earning opportunity should be electric usage intensity across the utility's territory. A metric tied to system-wide usage intensity will encourage utilities to facilitate CCAs, ESCOs, and DER providers in bundling energy efficiency with other value-added services to reduce customers' total bills. It will also encourage utilities to collaborate with NYSERDA, local governments, and CCAs toward achieving mutual local and statewide objectives.96 A number of energy intensity metrics can be considered, including kWh per capita, kWh per customer, and kWh per GDP.97 (page 82)
- Additional earning opportunities ma (p82) may be based on program-specific savings tied either to efficiency achievements that exceed minimum program targets, or cost savings achieved by cooperative activities or innovative market approaches requiring fewer incremental ratepayer funds. Any earning adjustments related to net savings should be tied to advances in Evaluation, Measurement and Verification (EM&V) that utilize direct customer information.
- Utilities may also propose EAMs tied to innovative efficiency measures that help to achieve goals established in the low-income affordability proceeding. Because NYSERDA is the principal provider of low-income energy efficiency services, utility proposals should demonstrate how they will either improve the effectiveness of NYSERDA programs or work in coordination with NYSERDA programs.
- This approach will tie utility earnings to (a) greater overall efficiency achievements, (b) the transition toward market-driven achievements and away from surcharge-funded programs, (c) coordination with efforts to reduce peak and improve load factor; and (d) improvement on attribution-based EM&V measures that have proven to be problematic in the context of utility incentives.

Interconnection (3) p 85-86

- *Interconnection*. Staff proposed an EAM for smaller projects of less than 50 kW. Because these projects should be reviewed and approved with limited analysis required, Staff proposed a negative adjustment if 100% of projects are not processed in a timely manner as required under the Standardized Interconnection Requirements (SIR). Staff also recognized the risk that a potential negative adjustment for interconnections could give utilities an incentive to reduce the overall volume of interconnection applications. In order to avoid this, Staff proposed that a positive incentive should be available to utilities for timely processing of applications in any year in which the total number of approvals is 20% higher than the previous year. Staff also addressed projects greater than 50kW, but recognized that these are more complex and proposed that an EAM be developed, with party participation, around the goals of timeliness and cost of compliance.
- Therefore, we will establish an interconnection EAM with the following components:
  - A threshold condition based on adherence to the timeliness requirements established in the SIR; and
  - A positive adjustment based on an evaluation of application quality and the satisfaction of applicants with the process, as measured by 1) a survey of applicants to assess overall satisfaction, and 2) a periodic and selective third party audit of failed applications to assess accuracy, fairness, and key drivers of failure in order to support continual process improvement.

Customer engagement and information access (4) p 87-

- Staff proposed an EAM that gauges utilities' success in implementing an online portal to connect customers with DER providers. Recognizing that development of this portal will take time, Staff proposed an interim EAM around three goals: (1) implementation of a statewide tool to provide utility customers access to their energy information and ability to share it; (2) the percentage of customers using this tool; and (3) successful promotion of demand response and time-variable rate programs.
- The Commission has emphasized the importance of engagement in the Framework Order, the DSIP Guidance order, the Con Edison Advanced Meter Infrastructure Order, and the orders related to Community Distributed Generation and Community Choice Aggregation. Customer engagement contributes to almost all of the outcomes Commission – generally thinks that utilities should be doing this anyway and so no specific EAM
- Some specific EAMs For example, incentive awards can be provided for customer uptake of programs for opt-in time-of-use rates or a future smart home rate, demand response and energy efficiency programs, and initiatives related to fuel switching (such as electric vehicle adoption and ground source heat pumps). (p89)

GHG reductions; achievement of CES goals (5) p90-

- a Clean Energy Standard (CES) to achieve the State's target of 50% renewable generation by 2030
  http://www3.dps.ny.gov/pscweb/WebFileRoom.nsf/Web/44D3BA551B9EC7D185257FAA006B1E54/$File/pr16023.pdf?OpenElement
  - (not to be confused with Clean Energy Fund https://www.governor.ny.gov/news/governor-cuomo-launches-5-billion-clean-energy-fund-grow-new-york-s-clean-energy-economy).
- The State Energy Plan targets a 40% reduction in greenhouse gasses from 1990 levels throughout the economy.
- Utilities should have earning opportunities tied to reducing the cost of achieving the CES goal. The specific nature of opportunities will depend on policy and implementation decisions that will be made in the CES proceeding.

Affordability (6) p92-93

- Order to fit in with NY's affordability policy, announced the same day:
  - http://www.nyserda.ny.gov/About/Newsroom/2016-Announcements/2016-05-19-Governor-Cuomo-Announces-New-Energy-Affordability-Policy

Scorecards (7) p93-96

Staff recommended metrics	Commissioner comments
System utilization and efficiency: this would encompass load factor, T&D system utilization, fuel diversity, and overall system heat rate;	More collaborative work needed
DER penetration: this would focus on the penetration of distributed generation, dynamic load management, and energy efficiency as a percentage of total utility load;	Think about affordability
Time-of-use rate efficacy: this would measure the rate of adoption of opt-in TOU rates, and the ability of customers to reduce their bills via these rates;	Maybe carbon an EAM but work through CES
Market-based revenues: this would track the amount, and sources, of utility revenues from platform and value-added services, to reflect the degree of market uptake and the success of utilities in adjusting their business models;	Add resilience as a metric
Carbon reduction: this would track the market penetration of carbon-free sources as a percentage of total load within each utility's service territory;	These metrics likely to become EAMs in future once data available
Conversion of fossil-fueled end uses: this would track the adoption rates of electric vehicles and conversion of combustion appliances to high-efficiency electric appliances;	
Customer satisfaction: this would utilize existing indices that measure customer satisfaction, complaint response time, escalated complaint response time, and pending cases; and	
Customer enhancement: this would be a broader index encompassing the affordability metric, customer engagement in markets, customer satisfaction, and HEFPA compliance rates.	

Other revenue (8) issues

- Earning Sharing Mechanisms p97
  - Staff proposed should be on outcome based metrics
- Clawback reform p98-9
  - During the course of a multi-year rate plan, a utility can potentially increase its near-term earnings by withholding funds from capital projects that were included in its base rates.109 For this reason, rate plans include a “net plant reconciliation mechanism” which is normally referred to as the “clawback” mechanism. The clawback provides that earnings from capital programs that fall below approved levels must be returned to customers.
  - For this reason, Staff proposed a change in the clawback mechanism that would allow utilities, when they adopt DER alternatives to capital projects, to retain the earnings on capital that are already reflected in base rates, until rates are reset in the next rate case. These earnings would be offset by the utilities absorbing the operating costs of procuring the DER. At the next rate case reset, the DER expenses would be incorporated into base rates and the earnings associated with the foregone capital project would be removed. - accepted by commissioners
- Totex p101
  - Even a full adoption of totex, however, would not remove a potential utility bias toward maximizing its own share of total system expenditures. EAMs and PSRs are intended to address these incentives. Staff has identified technical obstacles to adopting a full totex approach at this time. In addition, parties have identified concerns over how and why totex would be an improvement over current approaches. Totex should continue to be studied
- Recovery of DSP related investments p104
  - Staff discussed the rate treatment of utility investments that will be needed to build DSP functionalities. Recognizing that utilities will be responding to a Commission mandate, and that some of the investments will reflect new directions, Staff addressed the potential risk by proposing that, “following close review of DSIPs, utilities should receive assurance … that the initial decision to invest in these capabilities will not be subject to retrospective review.”115 v contentious but adopted by Commissioners
- Long Term Rate Plan p107

Rate Design Reform p109

- Staff analyzed rate design in the context of REV and found that, much like the utility revenue model, current rate design practices fail to provide adequate incentives and value signals that are suitable for a modern electric system.
- The crux of the issue, according to Staff, is that “residential and small commercial customers are not provided with information about the true components of cost or the means to effectively respond to the price signals such information can provide.”
- Rather than simply being a means to recover allocated costs, rate design should be used to send value signals that enable the reduction of total system costs.
  - Merely changing rate design will not accomplish policy goals unless customers have the tools to respond to improved value signals.
  - Increased precision in the rate paid by customers must be matched by increased precision in the compensation to customers for the contributions of DER to the system.
  - Policy and equity objectives such as low-income impacts, gradualism, and environmental and social impacts must always be balanced with technical rate design objectives.
- The rate reforms initiated here are not intended as a response to the current, relatively small, penetration of DER; rather they are needed to support a high-DER future.

Rate Design Reform

Types of customers	Customer granularity to be developed	Rate design principles to guide reforms
Traditional consumers	Temporal	Cost causation
Active consumers	Locational	Encourage outcomes
Prosumers	Attribute	Policy transparency
		Decision-making
		Fair value
		Customer-orientation
		Stability
		Access
		Gradualism
NB Consumers who rent their homes, reside in multi-family or mixed-use facilities, and/or do not have individual metering may lack either an economic incentive or practical access to manage their energy usage by investing in DER		

Staff recommended Rate Design Reform Process p113

- Staff's specific proposals were divided into near-term specific recommendations and long-term directional proposals that will need further process.

- The near-term recommendations made by Staff were:
- Utilities should file voluntary smart-home tariffs
- Opt-in time of use rates should be improved and promoted
- Rates for large customers should be examined to improve their time variability
- Low-income discounts should be located within a basic usage block
- Standby rates should include a reliability credit and a campus tariff

- Long-term recommendations were:
- Analyse potential bill impacts of demand-based and default time-varying charges
- Review cost allocations for potential revisions to standby rates

Net Energy Metering (NEM) – put off p125

- Finally, the White Paper discussed at length the subject of compensation for DER as well as its relation to net energy metering. Parties had a great deal of comment on those topics. Because we have initiated a separate proceeding to establish a full valuation methodology for DER, which will also cover questions related to NEM, those topics will not be addressed here, other than to note that principles of full valuation and accurate price signals must apply both to the rates paid by customers and the value received in return for DER services.126

Reforms to Standby Tariffs p127-8

- Standby tariffs apply to customers that generate much of their power onsite. They reflect the cost of using the distribution grid as a backup; at the same time, standby tariffs are often described as a barrier to the development of distributed generation. A temporary exemption from standby rates for some types of new projects was ordered in April 2015,under the assumption that an improved rate design will be put into place. P127
- Current standby rates are designed to reflect the full cost of delivery under the assumption that customers' onsite generation will not be available during peak time periods. P 128

Opt-ins p132 – worrying still related to DSP

- The PSC called for utilities to improve their existing opt-in, TOU rate offerings and to try to get more participation through promotion and education.
  - Utilities will also work with the New York State Energy R&D Authority and third parties to developer “Smart Home Rate” pilots.
    - Utilities become incentivised to promote greater customer involvement
    - Time of Use and Smart – Homes

Smart-home rates

- In keeping with the distinction between traditional consumers, active consumers, and prosumers, Staff recommended that prosumers should be served by an opt-in Smart Home rate (SHR) to advance the early adoption of sophisticated home energy management technologies. A Smart Home rate would unbundle price signals to incentivize different types of DER and energy management responses. P134
  - to be offered by utilities as a demonstration approach in the short term ? Can ESCOs offer them? p136

Additional utility ways to make money via reformed rate design

- 6. Opt-in rate design: Voluntary participation in advanced rate design will be encouraged in two ways:
  - Opt-in time of use rates: Each utility will examine its existing TOU rates with reference to rates in other jurisdictions that have higher participation; each utility will also develop improved promotion and education tools.
  - Smart Home rates: Utilities will collaborate with NYSERDA and third parties to develop Smart Home Rate pilots.
- 7. Large customer demand charges: Rate cases will examine the existing demand charges applicable to commercial and
- industrial customers to determine if they can be made more time-sensitive.
- 8. Scorecard metrics: A non-exclusive list of ten scorecard measures is adopted, and a collaborative process will be conducted to establish metrics for each measure.
- 9. Standby service (long term): Utilities will file reviews of the methods and formulas by which costs are allocated to standby service customers.
- 10. Mass-market rate design: Staff will work with stakeholders to develop an analytic approach to examining bill impacts, for various classes of customers, of a range of default time-varying rate scenarios including time-of-use rates, demand charges, and peak-coincident demand charges.

Customer data p 137

- Ready access to information regarding customer energy usage is vital to the success of DER markets.134 For DER developers, information about a potential customer's energy usage is necessary to design products tailored to the consumer's needs. For consumers, data regarding their energy usage is a prerequisite to informed decisions regarding energy usage and purchases. Empowering consumers with tools to easily share that information with vendors whom they select will facilitate market development.
- Issues around customer data are (1) whether utilities may charge fees for releasing data, and (2) the types of data to be released and the conditions for release. P 138
  - Basic data free, and for up to 24 months worth
  - Utility charges may also be assessed for data that is more granular and/or more frequent than the basic data described below. As provided in our discussion of PSRs, these charges may be value based, consistent with our interest in having utilities develop market-based revenues.p140
- What is basic data ?
  - Development of data sharing measures that are customer-oriented is already underway. The Commission recently addressed customer data issues relevant to Con Edison's Advanced Metering Infrastructure proposal.141 Con Edison was directed to implement "Green Button Connect My Data," which is an existing trademark-protected industry-standard protocol that enables customers to obtain their granular energy usage data and share it with vendors they select, as an integral part of its AMI deployment, and to submit additional filings detailing its customer engagement plan and proposed privacy protections applicable to AMI.
  - The basic level of customer data that is to be provided free of charge is defined as the usage for each applicable rate element, including usage bands specified in the applicable tariff. This is the level of data necessary to render, reconstruct and understand the customer's bill, which will ensure that customers have ready access to information necessary to fully understand how their energy usage affects their energy bill, as well as to understand how energy service offers from vendors may affect their utility bill. Availability of this information, at no cost, to developers who are authorized by the customer will facilitate the developer's ability to identify products which may be of value to the customer. Customers and vendors they authorize should have free access to recent usage data at the frequency most commonly measured by the customer's meter. For customers with monthly meter reads, this includes 24 months of monthly usage information. For customers with interval meters communicating with the utility, this includes 15-minute interval data on an individual account basis, on a one-day lag. P142
- Charges for Analysis and Data
  - Department of Energy Voluntary Code of Conduct p145

Wider Data Issues – not seen as public good for innovation p147

- Aggregate data issues - we address availability of aggregated data for market participants other than CCA communities. The Notice for the December 2015 Technical Conference, asked how utilities could prepare and provide electronic access to customer data aggregated by municipality in a standard format and an efficient manner. NYSERDA has a Utility Energy Registry (UER). NYSERDA indicated that the pilot has demonstrated that utilities can provide aggregate community-level data through a standardized process.
  - Order Authorizing Framework for Community Choice Aggregation Opt-Out Program (issued April 20, 2016) (CCA Order).
- Commissioners decided with respect to charging for aggregated data : As the CCA Order stated, charges could be revisited when the data system is automated and utilities' incremental costs are reduced. Each utility, or the utilities jointly, should file a progress report regarding automation efforts September 1, 2016. We will consider placing an end date on the utilities' authority to charge for data, in order to stimulate development of an automated process. These charges will be reconsidered once utilities automate their data systems p154
- Data Privacy p154 – municipalities can opt out p156 but it comes from municipalities not utilities

Timelines

- Platform Service Revenues – create applications
- Earning Adjustment Mechanisms
  - System Efficiency plan by 1 dec 2016
  - Energy efficiency plan by 1 dec 2016
  - Customer engagement
  - Interconections plan by 1 Aug 2016
  - Within 90 days of CES being adopted, Staff will initaiate a process to develop EAMs *Clawback reform*: Each utility will propose this in the next rate filing following this order.
  - *C/I demand charge reforms*: These will be considered for each utility, either in a pending rate case, or pursuant to a filing by each utility by April 1, 2017.
  - *Data access charges:* Tariffs for aggregated data will be filed pursuant to the CCA order. Tariffs for other charges described in this order may be filed at any time.
  - *Aggregated Data access requirements*: Each utility will file a data privacy policy statement by October 1, 2016. Each utility will file a progress report on automation efforts by December 1, 2016.
  - *Scorecard metrics*: Staff will initiate a collaborative process and will issue a progress report to the Commission by May 1, 2017.
- *Standby tariffs*:
  - Credit: Each utility other than Con Edison will file tariff revisions to implement the offset tariff and reliability credit provisions as proposed by August 1, 2016. For Con Edison, such revisions related to the reliability credit will be incorporated into its current rate filing and made effective January 1, 2017.
  - Allocation matrix review: Each utility will file a review and proposed revision by October 1, 2016.
- *Opt-in rate design reforms:*
  - Each utility will include in its next rate filing a proposal to revise its voluntary time-of-use rates for mass market customers, including an analysis of how the proposed rate compares with rates in other jurisdictions as described above. Each filing will also include a promotion and education tool. For utilities with rate plans that expire after January 1, 2018, a filing will be made by June 1, 2017 rather than waiting for the next rate filing.
  - Each utility will propose one or more Smart Home Rate demonstration projects by February 1, 2017.
- *Mass market default rate design reforms*: Staff will report to the Commission regarding the scope, feasibility, and deliverables of a potential study of bill impacts, by October 1, 2017.

RMI blog on Order

http://blog.rmi.org/blog_2016_05_20_new_yorks_next_steps_in_the_rev_olution