Docket No. 4780
Eleventh Set of Data Requests of the
Division of Public Utilities and Carriers to National Grid
March 12, 2018

11-1. Are there any accounting rules or other requirements that the Company believes it has an obligation to follow – relating to the allocation of service company costs among affiliates in different jurisdictions for activities that will provide benefits to those affiliates – which determine the allocation of costs based on a condition that a benefitting affiliate may not be charged a share of the cost unless its applicable regulator has granted assurance of cost recovery in advance for the activity in question? If yes, please identify and explain the rule or requirement, and identify its origin.

Response can be found on Bates page(s) 1-50.

11-2. Referring to the response to DIV 27-1 (Docket 4770), if the Massachusetts DPU and New York PSC did not provide assurance of cost recovery for the GIS Data System Enhancements for the Company's affiliates, is it the Company's position that Rhode Island can only go forward with the PST initiative if Rhode Island provides cost recovery to the Company for the entire initial project (as reflected in the Rhode Island Only cost estimate in the PST-1 filing)? If so, please provide all the reasons (whether legal or otherwise) why this is necessary for the Company to advance the initiative.

Response can be found on Bates page(s) 51.

11-3. Referring to the response to DIV 27-3 (Docket 4770), the question asked: "Is it the Company's understanding that implementing the GIS Data System Enhancements is or will be an important component of providing electric service within the next three years?" The question then requested: "If yes, please explain why the Company is not simply going forward with the project much like the Company is doing in its gas business for Gas Business Enablement where it did not obtain regulatory approvals prior to advancement." The Company's response to DIV 27-3 never answered the question whether it would be important, but acknowledged that there would be benefits in the next three years and the Company's response to DIV 27-4 (Docket 4770) acknowledged that there would be benefits for distribution planning even if the DSCADA & ADMS project was not implemented yet. The response to DIV 27-3 also did not answer the second question that asked why the Company is not simply going forward with the project much like the Company is doing in its gas business for Gas Business Enablement where it did not obtain regulatory approvals prior to advancement. Please provide a responsive answer to each of the unanswered questions.

Response can be found on Bates page(s) 52-53.

11-4. Referring to the response to DIV 8-57, DIV 8-59, and DIV 27-1 (Docket 4770), if the Commission declines to approve the proposed PST tracker (as proposed in Docket 4780)

or another similar mechanism outside of base distribution rates that reconciles the costs of PST initiative, is it the Company's position that it will not proceed with the GIS Enhancements project if it does not have pre-approval of a rate recovery mechanism that assures all the costs will be recovered without any risk of regulatory lag between rate cases that might result in some annual costs not being covered in rates for a given year? If yes, please explain why. If not, are there any conditions that the Company would insist upon prior to moving forward?

Response can be found on Bates page(s) 54.

11-5. If the Service Company made the GIS Enhancements as proposed in PST-1, is it Narragansett Electric Company's position that making such enhancements would be prudent for the electric distribution business in Rhode Island? If yes, please explain why it would be prudent. If not, please explain why it would not be prudent.

Response can be found on Bates page(s) 55.

11-6. Referring to the response to DIV 8-57, 8-59, and DIV 27-1 (Docket 4770), if the Commission declines to approve the proposed PST tracker (as proposed in Docket 4780) or another similar mechanism outside of base distribution rates that reconciles the costs of PST initiatives, is it the Company's position that it will not proceed with the feeder monitoring project if it does not have pre-approval of a rate recovery mechanism that assures all the costs will be recovered without any risk of regulatory lag between rate cases that might result in some annual costs not being covered in rates for a given year? If yes, please explain why. If not, are there any conditions that the Company would insist upon prior to moving forward?

Response can be found on Bates page(s) 56-57.

11-7. Referring to the response to DIV 27-4 (Docket 4770), will there be benefits to distribution planning or other distribution business benefits if the System Data Portal project is implemented prior to the GIS Enhancements being implemented or completed? If yes, please identify the benefits. If not, please explain why not.

Response can be found on Bates page(s) 58.

11-8. Referring to the response to DIV 8-57 (Docket 4770), please state whether the Company maintains that stakeholder participation makes it important that the GIS Enhancement costs be recovered through a fully reconciling PST tracker rather than base distribution rates and, if so, please explain why. In the response, please focus on what it is about the GIS Enhancement project itself that causes this need, as opposed to all PST initiatives generally.

Response can be found on Bates page(s) 59.

11-9. Referring to the response to DIV 8-57 (Docket 4770), please state whether the Company maintains that stakeholder participation makes it important that the feeder monitoring project costs be recovered through a fully reconciling PST tracker rather than base distribution rates and, if so, explain why. In the response, please focus on what it is about the feeder monitoring project itself that causes this need, as opposed to all PST initiatives generally.

Response can be found on Bates page(s) 60.

11-10. Referring to PST-1, Bates page 45, there is a statement about the System Data Portal, as follows: "The functionality and the look and feel of the portal will be similar to a system data portal recently deployed in National Grid's New York jurisdiction. Although utilization details continue to evolve in New York, best practices and lessons learned will be used to refine efforts in Rhode Island to the furthest extent possible." Please explain how the costs of the project were recovered in rates.

Response can be found on Bates page(s) 61.

11-11. Has the Company's affiliate in New York implemented GIS Enhancements similar to what is being proposed as a PST initiative for the Company in Rhode Island? If yes, please describe and note any general differences (if any). If yes, please describe how the costs of the GIS Enhancements have been recovered in rates.

Response can be found on Bates page(s) 62.

11-12. Referring to the response to DIV 27-7 (Docket 4770), the response indicates that the Cybersecurity projects proposed in PST-1 would not provide any benefits to the Company's affiliates in Massachusetts and New York. Please reconcile this statement with Table 3-21, which shows a lower cost to Rhode Island in a multi-jurisdictional scenario and the statement that there would be significant cost synergies if investments were coordinated. Is there a portion of the capital costs that would create a foundational system that could be used by the affiliates for their benefit at a later date? How is it possible that no future benefits could accrue to the other affiliates when the capital costs would be approximately $10 million higher in the RI scenario, compared to the multi-jurisdictional?

Response can be found on Bates page(s) 63.

11-13. Referring to the response to DIV 27-8 (Docket 4770), the question asked if the advanced analytics will be an important component of providing electric distribution service within the next three years. It also asked if the answer was yes, to explain why the Company is not simply going forward with advanced analytics much like the Company is doing in its gas business for Gas Business Enablement where it did not obtain regulatory approvals prior to advancement. The response did not answer the last question. Please provide a responsive answer.

Response can be found on Bates page(s) 64.

11-14. Referring to the response to DIV 27-7 (Docket 4770), the response indicates that the advanced analytics project proposed in PST-1 would not provide any benefits to the Company's affiliates in Massachusetts and New York. Please reconcile this statement with Table 3-17, which shows a lower cost to Rhode Island in a multi-jurisdictional scenario. Is there a portion of the capital costs that would create a foundational system that could be used by the affiliates for their benefit at a later date?

Response can be found on Bates page(s) 65.

11-15. Referring to the response to DIV 27-10 (Docket 4770), the response indicates that early implementation of the System Data Portal beyond the scope of the SRP "is limited by the Company's ability to secure and train the human resources necessary to perform the additional work." Is the Company saying that it is not capable of securing and training the human resources in the Rate Year to implement beyond the scope of the SRP because of this limitation? If so, please explain why not. If not, please explain what was meant by noting this as a limitation.

Response can be found on Bates page(s) 66.

11-16. Referring to the response to DIV 27-5 (Docket 4770), why would the upgrades to the GIS and software not be capitalized?

Response can be found on Bates page(s) 67.

Division 11-1

Request:

Are there any accounting rules or other requirements that the Company believes it has an obligation to follow – relating to the allocation of service company costs among affiliates in different jurisdictions for activities that will provide benefits to those affiliates – which determine the allocation of costs based on a condition that a benefitting affiliate may not be charged a share of the cost unless its applicable regulator has granted assurance of cost recovery in advance for the activity in question? If yes, please identify and explain the rule or requirement, and identify its origin.

Response:

National Grid is required to comply with the Federal Energy Regulatory Commission's (FERC) Regulations Under the Public Utility Holding Company Act of 2005 (PUHCA 2005) and cross-subsidization restrictions on affiliate transactions, which include among other things the accounting, recordkeeping, and reporting requirements set forth in 18 CFR 366.5. To that end, National Grid follows its Cost Allocation Manual (CAM), which is attached as Attachment DIV 11-1, when allocating costs.

The purpose of the CAM is to serve as a guide as to the manner in which costs should be charged to the other National Grid companies by National Grid USA Service Company, Inc. (Service Company) or among affiliates in the event of storm restoration and other emergency services. The prevailing premise of these cost allocation guidelines is that allocation methods should not result in subsidization of non-regulated services or products by regulated entities or subsidization of services or products from one regulated entity to another.

The provision of administrative services to the National Grid companies by the Service Company is specified in service agreements filed with the respective utility regulatory commissions.

There are no other accounting rules or other requirements, of which the Company is aware, that determines the allocation of costs based specifically on a condition that a benefitting affiliate may not be charged a share of the cost unless its applicable regulator has granted assurance of cost recovery in advance for the activity in question. If a regulator in a particular jurisdiction denied recovery of a service that the Service Company provided, but the jurisdiction was still receiving the service, the companies in that jurisdiction would still be allocated the costs consistent with the guidelines discussed in the CAM as they were receiving the benefit of the service. If the jurisdiction stops using the service, the costs would be allocated to the companies still receiving the service.

(This response is identical to the Company's response to Division 34-11 in Docket No. 4770.)

Prepared by or under the supervision of: Melissa Little

National Grid USA

Cost Allocation Manual

Revised, April 2017

I N D E X

1. Introduction

National Grid, a publicly traded company based in the United Kingdom, is an international Electricity and Gas Company and one of the largest investor-owned energy companies in the world. National Grid USA (Company) is a wholly-owned subsidiary of National Grid which provides energy services in Massachusetts, New York and Rhode Island.

National Grid USA Service Company, Inc. (Service Company), a wholly-owned subsidiary of National Grid USA, is a company engaged primarily in the rendering of services to companies in the National Grid USA holding company system. The organization, conduct of business and method of cost allocation of the Service Company are designed to result in the performance of services and the provision of goods economically and efficiently for the benefit of affiliate companies at cost, fairly and equitably allocated among such companies.

The purpose of the Cost Allocation Manual (CAM) is to serve as a guide as to the manner in which costs should be charged to the National Grid USA client companies (Client Companies) by the Service Company or among affiliates in the event of storm restoration and other emergency services. The prevailing premise of these cost allocation guidelines is that allocation methods should not result in subsidization of non-regulated services or products by regulated entities or subsidization of services or products from one regulated entity to another.

The provision of administrative services to the Client Companies by the Service Company is specified in service agreements filed with the respective utility regulatory commissions (Commissions).

2. Responsibility for Maintaining the CAM

The VP, US Financial Controller, has overall responsibility for the Company's cost allocation policies and procedures. The Service Company Management, has day-to-day responsibility for maintaining the CAM and ensuring that accounting records reflect the policies and procedures described in the CAM. This includes responsibility for maintaining the list of approved cost allocation bases as described in Section 9 of this manual.

3. Definitions

a. **Act** – Any State or Federal law or regulation providing guidance and requirements related to cost allocations or the pricing of services provided among affiliates.

National Grid is required to comply with the Federal Energy Regulatory Commission's (FERC) Regulations Under the Public Utility Holding Company Act of 2005 (PUHCA 2005) and cross-subsidization restrictions on affiliate transactions. Specifically, these include compliance with: (1) cross-subsidization restrictions on affiliate transactions under 18 C.F.R. Part 35; (2) accounting, recordkeeping, and reporting requirements under C.F.R. Part 366; (3) Uniform System of Accounts (USofA) for centralized service companies under 18 C.F.R. Part 367; and preservation of records requirements for holding companies and service companies under C.F.R. part 368.

In the State of New York, the following sources provide substantive guidance and requirements on cost allocations.

- Public Service Law, §110(3)
- Case 06-M-0878, Joint Petition of National Grid PLC and KeySpan Corporation for Approval of Stock Acquisition and other Regulatory Authorizations, Merger & Gas Revenue Requirement Joint Proposal (dated July 6, 2007)
- Cases 12-E-0201 and 12-G-0202, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Electric Service and Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Gas Service, Rate Plan Provisions (Appendix 7 to Joint Proposal adopted by the New York Public Service Commission in its Order dated March 15, 2013)

b. **Affiliates –** Companies that are related to each other due to common ownership or control. For example, affiliates include National Grid USA Service Company, Niagara Mohawk Power Corporation, Massachusetts Electric, Boston Gas Company, Narragansett Electric Company, Narragansett Gas Company, KeySpan Energy Delivery of New York (KEDNY) and KeySpan Energy Delivery of Long Island (KEDLI). Public Utility Holding Company Act (PUHCA) 2005 defines the term "affiliate" of a company as any company, 5 percent or more of the outstanding voting securities of which are owned, controlled, or held with power to vote, directly or indirectly, by such company.

c. **Associate Company** – According to PUHCA 2005, the term "associate company" refers to any company in the same holding company system with such company.

d. **Attributable Cost** – Costs which are incurred for activities and services which benefit the client companies. Some costs are directly attributable to the client companies; other costs such as corporate governance costs are indirectly attributable to the client companies.

e. **Client Companies** – Affiliates which receive services provided by the Service Companies.

f. **Cost Causative Allocation Factor** – Methodology used to allocate directly attributable costs based upon measurable cost causing relationships; for example, payroll department costs are allocated on the number of employees for each entity to which the Service Company provides this service.

g. **Commission** – The State utility regulatory commissions in the states in which National Grid operates. These include the New York Public Service Commission, the Massachusetts Department of Public Utilities and the Rhode Island Public Utilities Commission. National Grid also provides services which are regulated by the Federal Energy Regulatory Commission.

h. **Cost Allocation Manual (CAM)** - An indexed compilation and documentation of the Company's cost allocation policies and related procedures.

i. **Cost Allocations** - The methods or ratios used to apportion costs. A cost allocator can be based on the origin of costs, as in the case of cost drivers; cost-causative linkage of an indirect nature; or one or more overall factors (also known as general allocators).

j. **Common Costs** - Costs associated with services or products that jointly benefit all regulated and non-regulated business units.

k. **Cost Driver** - A measurable event or quantity which influences the level of costs incurred and which can be directly traced to the origin of the costs themselves; for example, number of invoices processed is a cost driver for the Accounts Payable department. To the extent possible, the allocation basis should reflect the underlying cost driver if the cost cannot be direct charged.

l. **Cross-subsidization** – The offering of a competitive product or service by an electric or gas public utility, or an affiliate, which relies in whole or in part on the use of utility employees, equipment or other assets, and for which full compensation (via cost allocation or direct payment), has not been provided resulting in the inappropriate transfer of benefits from the utility ratepayers to the competitive affiliate. See 18 C.F.R. Part 35 (2008) for FERC rules regarding cross-subsidization restrictions on affiliate transactions.

m. **Direct Costs** - Costs which can be specifically identified with a particular service or product and the Client Company(s) to which that product or service is provided. These costs are charged directly to the Client Company(s).

n. **Fully Allocated Costs** – The sum of the direct, indirect and other economic costs of all equipment, vehicles, labor, related fringe benefits and overheads, real estate, furniture, fixtures and other administrative resources utilized, and other assets utilized and costs incurred, directly or indirectly in the providing of services from the service company to an affiliate.

o. **Functions** – Refers to the National Grid internal organizational structures under which National Grid USA conducts business.

p. **General Allocator** – Methodology used to indirectly allocate attributable costs to entities. For National Grid USA, the general allocator is the ratio of net plant , net margins and net O&M expenses, equally weighted.

q. **Holding Company** – PUHCA 2005 defines "holding company" as "any company that directly or indirectly owns, controls, or holds, with power to vote, 10 percent or more of the outstanding voting securities of a public-utility company or of a holding company of any public-utility company" and any person who exercises "a controlling influence over the management or policies of any public-utility company or holding company as to make it necessary or appropriate for the rate protection of utility customers with respect to rates…"

r. **Indirect Costs** - Costs that cannot be directly identified with the provision of a particular product or service. This includes but is not limited to governance costs, insurance, and taxes as well the cost of services supporting the Service Company such as Service Company accounting and recruiting for Service Company positions.

s. **Jurisdictions** – Refers to the geographic areas in which National Grid USA operates. Jurisdictions are comprised of one or more utility companies.

t. **Non-Regulated** – Those entities, products and services which are not subject to regulation by regulatory authorities.

u. **Operating Companies** – Companies to whom the Service Companies provide products and services. Operating Companies include, but are not limited to, Niagara Mohawk Power Corporation, Massachusetts Electric, and KeySpan Energy Delivery of Long Island (KEDLI). Also referred to as Client Companies.

v. **PUHCA 2005** – 18 C.F.R. Title 18: Conservation of Power and Water Resources, PART 366 – PUBLIC UTILITY HOLDING COMPANY ACT OF 2005

w. **Regulated** - That which is subject to regulation by regulatory authorities such as the New York Public Service Commission.

x. **Service** – Any managerial, financial, legal, engineering, purchasing, marketing, auditing, statistical, advertising, publicity, tax, research, or any other service (including supervision

or negotiation of construction or of sales), information or data, which is sold or furnished for a charge. (PUHCA 2005)

y. **Service Agreement** – Legal agreements between the Service Companies and the Client Companies which describe the services offered, services selected, compensation and billing, terms, and cost accumulation, assignment and allocation methodologies. Also referred to as Service Contracts. The documents are filed with the utility regulatory commissions and serve as the basis for the FERC Form 60 disclosures.

z. **Service Company** – An affiliate which provides support services to its utility and other affiliates. This includes both the National Grid USA Service Company and the National Grid USA Engineering Services Company.

aa. **Service Level Agreements (SLAs)** – Non-binding agreements between the functional service providers and jurisdictional presidents that define the services provided and the financial and non-financial attributes of those services.

bb. **Support Services** – Administrative and support services that do not involve merchant functions; for example: payroll, taxes, shareholder services, insurance, financial reporting, financial planning and analysis, corporate accounting, corporate security, human resources (compensation, benefits, employment practices), employee records, regulatory affairs, lobbying, legal, and pension management. Support Services typically refers to those services offered by the Service Company.

cc. **Utility Companies** – Legal entities providing regulated wholesale and retail utility services.

4. Cost Allocation Principles

The following principles guide the allocation of costs of products or services provided by the Service Companies to the Client or Operating Companies. These principles also pertain to transactions among Operating Companies such as storm restoration services.

a. Direct charging or direct assignment is the preferred allocation methodology and should be used if the cost of providing a product or service can be identified with the specific affiliates receiving the benefit of that product or service. Direct charging should only be used if the cost of providing a product or service to an individual Client Company can be isolated and reported separately from costs to provide other products or services and from costs to provide the same product and service to other Client Companies.

b. The costs of products and services that cannot be direct charged should be allocated based on cost causative allocation bases representative of the underlying cost drivers of that product or service.

c. The cost allocation methodology should be comprehensive, transparent, stable and administratively manageable and cost effective.

d. The calculation of the cost allocation bases should be supported by a clearly defined methodology, model and supporting policy and procedure documentation.

e. The cost allocation methodology should accommodate changes in the size of the allocation bases from period to period based on changes in the underlying cost drivers; the allocation bases should not vary significantly from period to period for uncontrollable factors not related to the underlying cost drivers. For example, you would not choose an allocation basis that fluctuates significantly from period to period based on changes in weather if weather is not a cost driver for that activity.

f. The calculation of the allocation bases should be at least annually and more frequently if needed to reflect significant events (e.g., the sale of a significant affiliate)

5. Cost Apportionment Methodology

Costs are defined into the following four categories for purposes of allocating the costs of Service Company products and services to the Operating Companies. This hierarchy represents the preferred order of methodologies to be used when allocating costs. These four cost categories are:

Directly Assignable – Expenses incurred for activities and services exclusively for the benefit of an affiliate.

Directly Attributable – Expenses incurred for activities and services that benefit more than one affiliate and which can be allocated based on direct measures of cost causation; for example number of employees or number of invoices processed.

Indirectly Attributable – Expenses incurred as a "cost of doing business" that do not relate to the provision of specific products and services. The costs typically benefit all entities within the corporate umbrella. Examples include governance costs, Corporate Secretary costs, and investor relations costs. These costs are typically allocated based on a general measure of cost causation, commonly referred to as the general allocator.

Unattributable – Expenses incurred for activities or services that have been determined as not appropriate for apportionment to the operating company affiliates. These costs relate primarily to activities such as corporate diversification, political or philanthropic endeavors and, as such, are charged directly to the parent company, National Grid USA.

It is expected that the majority of costs charged to an affiliate will be based on the direct assignment or direct attribution of costs and that costs indirectly attributable to an affiliate will represent the smallest category of costs.

6. Description and Use of Service Level Agreements

Service level agreements are non-binding agreements between the functional service providers and jurisdictional presidents that define the services provided and the financial and non-financial attributes of those services. The services governed by these agreements are described in Section 6 of this manual.

Jurisdictional objectives are used to determine service provider performance goals. SLAs are a key tool by which the regulated operating companies manage both the cost and performance of services provided by the Service Company.

SLAs are negotiated annually between the functional service providers and the jurisdictions. The SLA renewal process includes a critical review of the cost and performance attributes of the services provided.

The Jurisdictional Presidents will receive reports detailing performance against the attributes agreed to in the SLAs.

7. Services Provided by the Service Company - Description and Allocation Methodology

The following table lists those services provided by the Service Company and the Client Companies to whom these services are provided. These services are provided in accordance with the service agreements filed with the Commissions. In addition, the provision of these services is governed by the Service Level Agreements described above between the functions and the jurisdictions.

Table 7-1
Services Provided By Service Company

Function / Department	***Description of Services Provided***	***Client Companies***
Operations		
Resource Planning	Prepare resource work plans; Assist on forecasting of capital spend five year plan; Manage scheduling and work coordination; Manage project control and regulatory reporting of operations projects.	Regulated Companies
Emergency Planning PMO	Develop emergency response plans and support storm restoration activities.	Electric and Gas Companies
Maintenance and Construction	Provides electric and gas maintenance of facilities and infrastructure and non-complex construction services; Conduct emergency response activities when necessary.	Electric and Gas Companies
Operations Performance	Provides quality assurance and control services for fieldwork; Manage operations metrics; Provide project management and construction services for complex projects; Develop and report of KPIs.	Regulated Companies
Control Center Operations	Operate gas and electric transmission and distribution networks and provide meter data management services.	Electric and Gas Companies
LNG Operations	Operate and maintain LNG and propane air plants; Ensure adequate regulation, compliance and training related to the LNG facilities.	Regulated Gas Companies
Operations Support	Provide fleet, aviation, materials and logistics, technical labs and testing services; Manage connections process for new gas and electric customers; Provide clerical support to all operations.	Regulated Companies

Function / Department	***Description of Services Provided***	***Client Companies***
Asset Management	Develop and deliver asset strategies and policies, procedures and work plans to manage the lifecycle of company assets enabling system performance and the reliable energy supplies; Develop strategies and plans around smart grid technologies; Manage vegetation and maintenance programs.	Regulated Companies
Gas Systems Engineering	Provides engineering and design services for gas distribution to deliver new customers connections and asset investment projects; Analyze data to ensure gas supplies are sufficient to support growth and maintain system reliability.	Regulated Gas Companies
Electric Systems Engineering	Provides planning, engineering and design services for electric transmission and distribution; Work with NERC, FERC and other working committees.	T&D Companies
Investment Planning	Develop capital plans for both electric and gas entities and monitor their long-term investment strategies and work plans; Manage sanctioning process.	Regulated Companies
FERC Operations	Develop strategy impact analyses on assets under FERC jurisdiction.	Companies under FERC Jurisdiction
Standards, Codes and Policies	Develop and communicate work and materials standards for gas and electric transmission and distribution engineering and operations; Provide training of new materials; Write procedures for gas and T&D organizations; Manage third party pole attachments.	Electric and Gas Companies
Regulatory Support and	Provide Regulatory Rate Case support e.g.	Regulated Companies

Function / Department	***Description of Services Provided***	***Client Companies***
Reporting	technical support, expert witness support and input to discovery questions; Gather information and compile reports for required regulatory reporting.	
Safety	Manage overall and specific safety programs; ensure field identification of hazards and safety performance; Develop and manage safety communications.	All Companies
Health	Manage the wellness program and related health services; Support the delivery of health services relating to absences due to both occupational (workers comp) and non-occupational illnesses; Provide medical screening services; Administer the drug and alcohol program.	All Companies
Environment	Ensure environmental compliance with all federal, state and local regulations including developing policies and procedures, training, and reporting; Manage licensing and permitting processes; Responsible for all site investigation and remediation activities.	All Companies
Customer		
Energy Solutions Delivery	Responsible for the increase in gas margin and energy efficiency products and solutions sales.	All Companies
Energy Products	Provide product knowledge and technical expertise for all growth programs; Manage the planning and evaluation of electric and gas energy efficiency, demand reduction, and climate change policy initiatives; Design new and manage existing portfolio of customer-focused programs for business and residential markets.	All Companies
Market Strategy and	Develop and implement market research	Regulated Companies

Function / Department	***Description of Services Provided***	***Client Companies***
Implementation	and intelligence, market strategy, trade marketing, web marketing initiatives and overall communications.	
Customer and Business Strategy	Design emergency programs for each jurisdiction; Serve as energy efficiency regulatory leader, collecting expenses related to energy efficiency; Manage solar and electric vehicles programs; Conceptualize corporate image; Manage relationships with and supports through economic development activities the local communities in which NG operates.	All Companies
Energy Procurement	Plan for and acquire energy (gas and electric) and related commodities; Manage jurisdictional and seasonal contracts as well as FERC compliance activities including training; Handle RFPs in MA and RI to contract with renewable energy suppliers (Solar, Wind, etc.); Manage long term gas planning processes including planning for peak loads, handling long-haul gas pipeline and market area storage.	Regulated Companies
Lead Intake	Contact center for prospective gas conversion customers.	Regulated Gas Companies
Customer Analytics and Risk Management	Provides market analytics, electricity and gas forecasting; Customer Choice studies and administration of CC program, commercial and wholesale electric market policy services; Perform research trends on energy usage.	All Companies

Function / Department	***Description of Services Provided***	***Client Companies***
Customer Care	Manage customer inquiries made either in-person, by telephone, by mail and by email; Manage emergency contact center; Manage outsourcing and move/connect inbound and outbound calls.	All Companies
Customer Operations Support	Manage connections process for new gas and electric customers; Provide clerical support to all operations.	All Companies
US Regulation & Pricing		
Regulatory Strategy	Assess revenue requirements, design pricing structures, and file and defend rate cases. Compile earnings reports, compliance filings, special filings and any other filings required by the PUC on a yearly basis.	Regulated Companies
Pricing and Federal Affairs	Develop long-term regulatory goals and filing plans consistent with business plans, trends, pricing and policy; Manage regulatory relationships; and provide strategic and policy advice to the regulated entities.	Regulated Companies
US Human Resources		
Labor & Emplyee Relations	Advise and assist the all companies with: • Labor contract negotiations and administration • Investigations into specific instances of misconduct or malfeasance • Employee grievances, arbitration and external complaint administration and management	All Companies

Function / Department	***Description of Services Provided***	***Client Companies***
	• Litigation	
US HR Business Partner	Assist with the development of the annual and five-year human resources plan and workforce strategy; Facilitate the succession planning process and organizational design; Drive the performance management process.	All Companies
Recruiting, Inclusion & Diversity	Identify recruitment needs and create regional recruiting strategies to source those needs, including external sourcing management, internal sourcing management and the testing and hiring and testing of union employees; Advise and assist operating companies in the administration of the design and implementation of diversity and EEO programs.	All Companies
HR Operations	Provide overall direction and leadership for the HR function while managing internal HR metrics and performance management.	All Companies
Compensation, Benefits & Pensions	Provide central administration for payroll and employee benefit and pension plans including: • Design and implementation of Total Rewards packages • Compliance with requirements of regulatory bodies.	All Companies
Technical Training	Assist with the design and delivery of technical training programs for Gas, Electric, Safety, Process support and Professional development.	All Companies
US Finance		

Function / Department	***Description of Services Provided***	***Client Companies***
Employee Services (SDC)	Provide employee services including: • Manage employee data within the HRIS • Provide employees and retirees with information and services related to payroll and year-end tax reporting; medical, dental and life insurance; retirement and pensions • Maintain and administer payments to current and retired employees	All Companies
Procure to Pay (SDC)	Maintain and administer the non-inventory procurement process; Maintain vendor master files; and administer the P-Card process, processing of invoices and review of expenses.	All Companies
Response Team (SDC)	Responsible for intake of incoming contact center calls for procurement, vendors.	All Companies
Billing Operations (SDC)	Process, review and issue customer invoices for retail and wholesale electric and gas sales; Provide maintenance of customer systems; Process billing exceptions, shared metering and mixed metering; Process special billing related to line extensions, pole rentals, water heaters, DOT work (outside companies).	All Companies
Credit and Collections (SDC)	Process employee services transactions, commercial and industrial credit and collections, and collections invoices; Devise strategy for field collections and residential collections.	All Companies
Business Process Excellence	Develop and implement reporting/communications, quality and benchmarking strategies for Shared Services; Develop and provide Training programs for shared services; Lead all	All Companies

Function / Department	***Description of Services Provided***	***Client Companies***
	continuous improvement activities; Develop and coordinate the US Service Level Agreement governance process.	
Property Strategy	Recommend strategies to optimize the use of the property portfolio.	All Companies
Facilities Management	Provide building maintenance services; provide capital improvements to NG USA facilities.	All Companies
Accounting Services	Maintain the general ledger for regulated companies; Carry out specialized accounting; Produce external reports for regulated utilities as well as PSC and FERC reports; Maintain plant accounting, billing systems, revenue accounting and reconciliations.	All Companies
Finance Business Partnering	Provide decision support at the functional level which includes: • Provide operating and capital budgets decisions and management reporting activities • Perform economic and financial analysis, and short and long-term financial forecasting • Align financial support functions with strategic plans, policies, procedures and internal controls • Perform benchmarking and monitoring of operations metrics to help the business achieve targeted results • Identify savings and potential efficiencies Provide financial services at jurisdictional level which includes: • Provide variance reporting and variance forecasting on income	All Companies

Function / Department	***Description of Services Provided***	***Client Companies***
	statement • Perform regulatory strategy/rate of return analyses • Perform revenue/margin analysis • Manage PSEG TSA, i.e. financial statements, variance analysis, contract costs and updates to contract profitability when necessary • Provide support to rate filings and rate cases	
IS Finance	Provide decision support related to IS initiatives; Manage IS project planning, budgeting, forecasting and accounting; Maintain hardware and ongoing infrastructure services.	All Companies
Corporate Planning and Reporting	Develop corporate Balance Sheets and Cash Flows used to develop forecasts, budget and variance reports; Report on financial statements; Manage business planning process including calendar and deliverables.	Mostly Regulated companies; consolidated US operations and internal customers
US Jurisdictions		
US Jurisdictions (NY, MA, RI, Fed, and LI)	Provide financial services at jurisdictional level which includes: • Provide variance reporting and variance forecasting on income statement • Perform regulatory strategy/rate of return analyses • Perform revenue/margin analysis • Manage PSEG TSA, i.e. financial statements, variance analysis, contract costs and updates to contract profitability when necessary • Provide support to rate filings and	All Companies

Function / Department	*Description of Services Provided*	*Client Companies*
	rate cases	
US IS		
Solution Delivery	Provides centralized IS project management, application development and application support services.	All Companies
Service Delivery	Manages all IT infrastructure including data centers and voice and data networks.	All Companies
Relationship Management	Manages the relationships between IS and its internal customers.	All Companies
IS Security	Provides IS security services.	All Companies
US Legal		
Corporate Counsel	Provide advice and support related to financing activity such as debt issuances, mergers and acquisitions, and commercial activities such as contracting and procurement.	All Companies
Litigation, Environment and Employment	Provide legal advice and counsel regarding litigation, environment, labor and employment issues, including issues related to National Grid's TSA with PSEG.	All Companies
Federal and State Regulatory	Provide legal strategic guidance and support on all regulatory issues related to jurisdictional operations on matters before state utility commissions and related regulators, FERC and other federal	Regulated Companies

Function / Department	*Description of Services Provided*	*Client Companies*
	agencies.	
Global Human Resources		
Technical Training	Assist with the design and delivery of technical training programs for Gas, Electric, Safety, Process support and Professional development.	All Companies
HR Business Partners	Assist with the development of the annual and five-year human resources plan and workforce strategy; Facilitate the succession planning process and organizational design; Drive the performance management process.	All Companies
Global Finance		
US Treasury	Provide services related to cash management, capital markets and compliance; pension and 401k investment management; and energy risk management and reporting (Regulated entities only).	All Companies
US Tax	Provide income tax compliance; income tax audit defense and controversy resolution; income tax accounting and financial reporting; income tax budgeting and forecasting; and income tax research and planning.	All Companies
US Insurance	Manage the overall purchase and procurement of different types of insurance.	All Companies
Business Resiliency	Devise and implement business resiliency efforts.	All Companies
US Investor Relations	Manage relationship with the investment community including results communications and investor outreach.	All Companies

Function / Department	***Description of Services Provided***	***Client Companies***
Global Legal		
Ethics and Business Conduct	Provide advice and counsel related to business ethics and compliance.	All Companies
Records Management	Provides records management services to meet business needs and ensure regulatory compliance.	All Companies
Senior Counsel Corporate		
Real Estate	Provide legal advice and counsel in connection with real property matters affecting National Grid's businesses.	All Companies
Corporate Counsel	Provide advice and support related to financing activity such as debt issuances, mergers and acquisitions, and commercial activities such as contracting and procurement.	All Companies
Global Procurement		
Procurement Strategy	Provide strategic direction and oversight for the procurement function.	All Companies
Sourcing	Responsible for procuring and contracting for goods and services.	All Companies
Corporate Affairs		
Communications and Brand	Formulate and assist with communication programs and administer corporate philanthropic programs.	All Companies

Function / Department	***Description of Services Provided***	***Client Companies***
Federal Affairs	Manage relationships with the Federal government, agencies and legislative bodies.	Regulated Entities
Government Relations	Manage relationships with State and local governments, agencies and legislative bodies.	Regulated Companies
Media Relations	Manage the relationship with the media including crisis and risk communications.	All Companies
Audit		
Internal Audit	Periodically conduct operating audits and audits of the accounting records and other records maintained by the operating companies. Issue audit reports and provide recommendations, as appropriate, on improving processes and the internal control framework.	All Companies
Strategy and Business Development		
Business Development	Devise and implement business development efforts (Direct charged to the US Holding Companies).	All Companies
Strategy	Coordinate development of US strategic plan.	All Companies

Table 7-2
Cost Allocation Methodology *Guide* for Services Provided

Function / Department	***Cost Allocation Methodologies***
Operations	
Resource Planning	• Direct Charge • Dollar Value of Property Owned • Total T&D Expenditures • General Allocator
Emergency Planning PMO	• Direct Charge • Miles of Overhead Lines • General Allocator
Maintenance and Construction	• Direct Charge • Total T&D Expenditures • Capital Expenditures • General Allocator
Operations Performance	• Direct Charge • Total T&D Expenditures • Dollar Value of Property Owned • General Allocator
Control Center Operations	• Direct Charge • # of Customers/Meters • General Allocator
LNG Operations	• Direct Charge • # of Customers/Meters • General Allocator

Function / Department	***Cost Allocation Methodologies***
Operations Support	• Direct Charge • Total T&D Expenditures • # of Customers/Meters • General Allocator
Asset Management	• Direct Charge • Dollar Value of Property Owned • Total T&D Expenditures • Capital Expenditures • Miles of Overhead Lines • General Allocator
Gas Systems Engineering	• Direct Charge • Capital Expenditures • Total T&D Expenditures • # of Customers • General Allocator
Electric Systems Engineering	• Direct Charge • Total T&D Expenditures • Capital Expenditures • General Allocator
Investment Planning	• Direct Charge • Dollar Value of Property Owned • Total T&D Expenditures • Capital Expenditures • General Allocator

Function / Department	***Cost Allocation Methodologies***
FERC Operations	• Direct Charge • Total T&D Expenditures • General Allocator
Standards, Codes and Policies	• Direct Charge • Total T&D Expenditures • Capital Expenditures • Dollar value of Property Owned • # of Joint Use Poles • General Allocator
Regulatory Support and Reporting	• Direct Charge • Total T&D Expenditures • Capital Expenditures • General Allocator
Safety	• Direct Charge • # of Employees • Total T&D Expenditures • General Allocator
Health	• Direct Charge • # of Employees • General Allocator
Environment	• Direct Charge • Dollar value of Property Owned • Total T&D Expenditures

Function / Department	***Cost Allocation Methodologies***
	• General Allocator
Customer	
Energy Solutions Delivery	• Direct Charge • # of Customers/Meters • General Allocator
Energy Products	• Direct Charge • # of Customers/Meters • General Allocator
Market Strategy and Implementation	• Direct Charge • # of Customers/Meters • General Allocator
Customer and Business Strategy	• Direct Charge • # of Customers/Meters • General Allocator
Energy Procurement	• Direct Charge • # of Customers/Meters • General Allocator
Lead Intake	• Direct Charge • # of Customers/Meters • General Allocator

Function / Department	***Cost Allocation Methodologies***
Customer Analytics and Risk Management	• Direct Charge • # of Customers/Meters • General Allocator
Customer Care	• Direct Charge • # of Inbound and Outbound Collection Calls • # of Bills Rendered • # of Customers/Meters • General Allocator
Customer Operations Support	• Direct Charge • # of Customers/Meters • General Allocator
Regulation & Pricing	
Regulatory Strategy	• Direct Charge • General Allocator
Pricing and Federal Affairs	• Direct Charge • General Allocator
US Human Resources	
Labor & Emplyee Relations	• Direct Charge • # of Employees • General Allocator

Function / Department	***Cost Allocation Methodologies***
US HR Business Partner	• Direct Charge • # of Employees • General Allocator
Recruiting, Inclusion & Diversity	• Direct Charge • # of Employees • General Allocator
HR Operations	• Direct Charge • # of Employees • General Allocator
Compensation, Benefits & Pensions	• Direct Charge • # of Employees • General Allocator
Technical Training	• Direct Charge • # of Employees • General Allocator
US Finance	
Employee Services (SDC)	• Direct Charge • # of Employees • General Allocator
Procure to Pay (SDC)	• Direct Charge • # of Customers/Meters • # of Invoice Lines Processed • # of PO Lines • General Allocator

Function / Department	***Cost Allocation Methodologies***
Response Team (SDC)	• Direct Charge • # of Customers/Meters • General Allocator
Billing Operations (SDC)	• Direct Charge • # of Customers/Meters • # of Bills • # of Joint Use Poles • General Allocator
Credit and Collections (SDC)	• Direct Charge • # of Inbound Call Minutes • # of Customers/Meters • # of Inbound and Outbound Collection Calls • General Allocator
Business Process Excellence	• Direct Charge • Follows SDC direct and cost causative charges • General Allocator
Property Strategy	• Direct Charge • Dollar Value of Property Owned • General Allocator
Facilities Management	• Direct Charge • Facilities Square Footage • General Allocator
Accounting Services	• Direct Charge • # of GL Transactions • Capital Expenditures

Function / Department	***Cost Allocation Methodologies***
	• Dollar Value of Property Owned • General Allocator
Finance Business Partnering	• Direct Charge • Total T & D Expenditures • General Allocator
IS Finance	• Direct Charge • General Allocator
Corporate Planning and Reporting	• Direct Charge • General Allocator
US Jurisdictions	
US Jurisdictions (NY, MA, RI, Fed, and LI)	• Direct Charge • Total T & D Expenditures • Capital Expenditures • # of Customers/Meters • General Allocator
Total US IS	
Solution Delivery	• Direct Charge • Mainframe Profile • Server Profile • # of Employees • General Allocator
Service Delivery	• Direct Charge • Mainframe Profile • Server Profile • # of Employees • General Allocator

Function / Department	***Cost Allocation Methodologies***
Relationship Management	• Direct Charge • Mainframe Profile • Server Profile • General Allocator
IS Security	• Direct Charge • Mainframe Profile • Server Profile • # of Employees • General Allocator
US Legal	
Corporate Counsel	• Direct Charge General Allocator
Litigation, Environment and Employment	• Direct Charge • # of Employees • General Allocator
Federal and State Regulatory	• Direct Charge • General Allocator
Global Human Resources	
Technical Training	• Direct Charge • # of Employees • General Allocator

Function / Department	***Cost Allocation Methodologies***
HR Business Partners	• Direct Charge • # of Employees • General Allocator
Global Finance	
US Treasury	• Direct Charge • Average Level of Debt Outstanding • General Allocator
US Tax	• Direct Charge • # of Employees • Dollar Value of Property Owned • General Allocator
US Insurance	• Direct Charge • # of Claims Processed • Dollar Value of Property Owned • General Allocator
Business Resiliency	• Direct Charge • General Allocator
US Investor Relations	• Direct Charge • General Allocator
Global Legal	
Ethics and Business Conduct	• Direct Charge • General Allocator
Records Management	• Direct Charge • General Allocator

Function / Department	***Cost Allocation Methodologies***
Senior Counsel Corporate	
Real Estate	• Direct Charge • General Allocator
Corporate Counsel	• Direct Charge • General Allocator
Global Procurement	
Procurement Strategy	• Direct Charge • # of PO Lines • General Allocator
Sourcing	• Direct Charge • # of PO Lines • General Allocator
Corporate Affairs	
Communications and Brand	• Direct Charge • # of Customers/Meters • General Allocator
Federal Affairs	• Direct Charge • General Allocator
Government Relations	• Direct Charge • General Allocator

Function / Department	***Cost Allocation Methodologies***
Media Relations	• Direct Charge • General Allocator
Audit	
Internal Audit	• Direct Charge • Other Allocation Bases Depending on Nature of Audit • # of Employees • General Allocator
Strategy and Business Development	
Business Development	• Direct Charge • General Allocator
Strategy	• Direct Charge • General Allocator

8. Affiliate Services Provided by Operating Companies – Description and Allocation Bases

On occasion, employees of one operating company provide services to another operating company. This typically happens when providing storm restoration services. In this case, the cost of the provider-company employees is billed to the service-receiving company on a full cost basis.

National Grid has some employees working on behalf of the service company who are on operating company payrolls. In these instances, the cost of these employees is allocated to the operating companies benefitting from their work as if these employees were service company employees. These employees are managed as service company employees; it is only a matter of convenience to the company that these individuals remain on the operating company payroll. The services provided by these employees are not considered to be "affiliate services provided by operating companies" for purposes of this manual.

9. Approved Cost Allocation Bases – SAP Internal Order Code (Allocation Basis Field), Description and Source

SAP Allocation Code[1]	Description	Definition / Source
C-xxx	# of Customers/Meters	Number of retail customers (via count of installed service meters) able to receive utility services by company as a percent of the CYE total. The source for this allocation basis is the SDC (Billing operations Group).
D-xxx	# of Inbound and Outbound Collection Calls	Number of inbound and outbound collection telephone calls by utility as a percent of the total based on call center telephone statistics. The source for this allocation basis is the SDC (Planning and Analysis Group).
E-xxx	# of Joint Use Poles	# of electric poles with 3rd party attachments (joint use poles) by Company as a percent of total joint use poles. The source for this allocation basis is the Network Strategy (Standards Codes and Procedures group).
F-xxx	# of Inbound Call Minutes	Number of minutes call center representatives are on the telephone with specific operating companies' customers based on contact center reporting systems as a percent of the total. The source for this allocation basis is the SDC (Planning and Analysis Group).
G-xxx	General Allocator - Net margin, Net plant, & Net O&M expenses	"Net Margins" are Total Operating Revenues less "Cost of Goods Sold" and revenues related to recovery of stranded costs. "Net Plant" is the sum of Net Utility Plant and Net Non-Utility Plant . "Net O&M Expenses" are all non "Cost of Goods Sold" expenses

[1] An Allocation Basis such as the General Allocator will have multiple SAP Allocation Codes. This is required because individual employees may provide services to one, a combination of, or all operating companies.

SAP Allocation Code[1]	Description	Definition / Source
		less costs allocated from the Service Company distributed to the Affiliate companies using the general allocator. A Special Report will be created to identify the amount to be excluded for Service Company Charges based on the General Allocator.
GT-xxx	General Allocator-Plus PSEG TSA Billing entity	Net margin, net plant, & Net O&M expenses post LIPA Separation.
H-xxx	# of Bills Rendered	Number of bills issued to customers by utility as a percent of the total bills in a given year. The source for this allocation basis is the SDC (Billing operations Group).
I-xxx	Dollar Value of Property Owned	A ratio based on gross fixed assets, valued at original acquisition costs, and investments owned in other companies, including construction work in progress, at the end of the calendar year, the numerator of which is for a specific client company and the denominator being all recipient client companies. The source for the calculation of this ratio will be based on FERC Form 1 reports and State regulatory Gas Company reports.
J-xxx	Facilities Square Footage	Number of occupied square feet per facility for each department or company using the facility. Periodically done on a facility by facility basis. The source of the most recent data is provided by the Financial Business Partner serving the Facilities organization.
K-xxx	Average Level of Debt Outstanding	Average level of long-term debt and short-term borrowing levels for prior CY by Company as a percent of the average level of long-term debt for all companies and short-term borrowing levels for all companies. • The source for the components of this allocation basis is the US Finance (Treasury group).
L-xxx	Miles of Overhead Lines	Number of miles of overhead transmission and distribution lines by utility as a percent of the total. The source for this allocation basis is the Network Strategy

SAP Allocation Code[1]	Description	Definition / Source
		(Standards Policies and Codes)
N-xxx	# of Employees	Total number of employees by company excluding the service company as a percent of the total. Count part time employees the same as full time employees. The source for this allocation basis is the SDC (Employee Services Group).
O-xxx	# of P.O. Lines	Number of purchase order lines for stock and non-stock materials and supplies and services by Company as a percent of the total. The source for this allocation basis is the SDC (Procure to pay/Payment Processing Group).
Q-xxx	# of Claims Processed	Number of claims processed by company based on claims department claims tracking system as a percent of the total. The source for this allocator basis is the US Finance (Claims group).
R-xxx	# of Invoice Lines Processed	Number of individual invoice lines processed by company as a percent of the total. Invoices may contain items purchased; each line represents the purchase of a specific good or service on behalf of a specific company. The source for this allocation basis is the SDC (Procure to Pay/Payment Processing Group).
T-xxx	Total T&D and CapEx Expenditures	Sum of T&D O&M and capital expenditures by Utility as a percent of total Utility T&D capital and O&M expenditures. The source of this allocation basis is the CAPEX based on "Cash Outflows for Plant" from FERC Form 1 Statement of Cash Flows and T&D O&M costs in the FERC reports or other equivalent reports (i.e, NY PSC report)
U-xxx	# of RTUs	Allocation to distribute the on going implementation of a new EMS system between the various New England Electric Operations based on the # of RTUs
V-xxx [Effective as of April 1, 2017]	EE $ Budgets	The Calendar year EE Budgets less Customer and Sharehloder Incentives. The sources for this allocation basis are the Approved Regulatory Filings for the Calendar year EE Budgets.

SAP Allocation Code[1]	Description	Definition / Source
X-xxx	Capital Expenditures	Capital expenditures by company as a percent of the total. The source for this allocation basis is the CAPEX based on "Cash Outflows for Plant" from the FERC Form 1 Statement of Cash Flows.

10. Other Allocation Codes and Charging Bases - are available, but are not currently being used.

Other Allocation Codes

SAP Allocation Code	Description	Definition/Source
P-xxx	Mainframe Profile	Based on Company / Function use of mainframe services. The source for this allocation basis is the US Finance (IS Finance Group). [IT allocation bases subject to change as part of IT Transformation initiative]
S-xxx	Server Profile	Based on Company / Function use of server services. The source for this allocation basis is the US Finance (IS Finance Group). [IT allocation bases subject to change as part of IT Transformation initiative]
Y-xxx	# of General Ledger Transactions	The number of general ledger transactions by Company as a percent of total GL transactions for all companies. The source of this allocation basis will be SAP (still to be developed).

Other Charging Bases

Charging Basis	Definition
Time Study	Based on periodic time studies of work performed or planned to be

Charging Basis	Definition
(Fixed Distribution)	performed (Time entered as if direct charged.)
Number of Airplane Trips	Fixed cost per trip calculated outside of SAP.
Number of Vehicles	Used to assign costs to client company transportation clearing accounts with calculation done outside the SAP order number.
Square Feet	Square feet per facility for facilitied not covered by a J allocator.
Number of Images Printed	Based on the number of documents copied, bound and printed with the cost of the services provided based on periodic studies.
Number of Training Center Transactions	Cost to provide training billed to users on a per session attended basis.

11. Manual Allocations

There will be instances in which employees will choose to assign costs in a manner that is different from the allocation bases described above in order to ensure that costs are properly allocated among companies. To accomplish this requires a Manual Allocation. When employees choose to use a non-standard cost driver to allocate costs, the basis for that decision and the method used to allocate costs among companies should be thoroughly documented, approved by department supervision and sent to the Service Company Integrity Department in a timely manner for review. **Form to Document Use of Manual Allocations** cab be found the U.S. Infonet site. See http://us2infonet/sites/Finance/Pages/Allocations.aspx

for reference to the form that has been developed to standardize the information gathered to support instances of "manual allocations". Anyone using a "Manual" allocation method must complete this form and send it to the Service Company Integrity Department. A copy of the completed form should also be retained by the initiating department.

For example, a manual allocation may be required for costs to provide training in which case the Company's benefitting from the training are not known prior to the completed enrollment. In this case, the manual allocation may be based on the relative proportion or number of employees by individual company attending the training.

12. Asset Recovery Charge

The Service Company owns assets which are used to provide services to the operating companies. These assets are primarily IT hardware and software and facilities.

The Service Company bills the operating companies a return on and of the assets it owns in a manner similar to that by which a regulated utility includes a return on and of the utility plant included in its rate base. The asset recovery charge is comprised of the following three elements:

- Depreciation
- Equity component of return
- Debt component of return

Depreciation is based on the expected useful life of the asset.

The cost of capital assumes a 50/50 equity/debt capital structure. This capital structure is used because it is representative of the capital structures of the individual operating companies and reflects National Grid's overall internal objectives for funding investments.

For rate regulated operating companies, the equity rate is that company's current, approved return on equity. For non-rate regulated operating companies, the return on equity rate is based on the allowed equity rates for the rate regulated operating companies weighted to reflect current rate bases.

The debt rate is based on the Service Company's actual overall cost of debt.

The calculation of the asset recovery charge can be inquired at
ServiceCompanyAccounting@NationalGrid.com

Service Company's Return on Capital - Charged to Affiliates

The service companies own or lease a number of assets that are either used by service company employees to provide services to affiliates or are used by affiliates on a shared basis. When assets are leased by the service companies, the leased assets are charged to the operating affiliates using National Grid's cost allocation methodologies. When the service companies finance and own shared assets, the service companies charge the affiliates a rental fee based on a pre-tax return on the asset (net of deferred taxes) and booked depreciation expense.

13. SAP Service Company Orders and Work Breakdown Structure

National Grid USA uses Service Company Order and Work Breakdown Structure (WBS) elements within SAP as the mechanisms by which the appropriate allocation bases are applied to resources consumed. Individual Orders/WBS have been established for each cost center based on the work performed, the nature of resources consumed (e.g., labor, materials, outside services) in performing that work, and the operating companies benefitting from the work performed. Embedded in the WBS is the allocation code associated with the "operating companies benefitting

from the work performed." Master Data Listing of All Orders and WBS Elements can be foud on the U.S. Infonet site directly under the posting of the CAM on the Allocations page. See http://us2infonet/sites/Finance/Pages/Allocations.aspx

Due to the complexity of the WBS coding structure and the large number of approved WBS codes, all new Service Company orders are required to be approved by Service Company Accounting prior to use. The Company has provided time entry tools to help employees choose the correct WBS when reporting time and expenses. See **Section 14. Time Reporting Procedures** for additional details.

The unique combinations used within SAP which facilitates the accurate direct charge or allocation of costs to the operating companies, include the following elements:

Order Number	WBS Element
• Type • Date Created • Description • Service Company Number • Responsible Cost Center • Cost Sharing	• WBS Description • Object Number • Created By • Company Code • Profit Center • Level Number • Responsible Cost Center • UF 1 WBS • UF 4 WBS

14. Time Reporting Procedures

All employees of the Service Company must positively report time; that is, time reports must be completed by each employee each reporting period that reflect the actual work activities performed during that period. The time report should clearly indicate the work performed during the time reporting period and the companies on whose behalf the work was performed. This is accomplished through the use of the appropriate SAP order number. If employees work on behalf of a specific operating company, an SAP order number should be used which accommodates the direct charging to that operating company.

At the time budgets are developed for the current fiscal year, the cost center manager should review the services provided and activities performed for the upcoming year, and the companies

on whose behalf those services are performed, to ensure that Internal Orders have been defined that properly reflect those services and activities. If not, the cost center manager should work with their Financial Business Partner to establish or modify the internal orders expected to be used by that department. Once established, the cost center manager should meet with the employees in the department to communicate the list of approved, department-specific internal orders.

Throughout the year, it is the responsibility of the cost center manager to ensure the list of internal orders remains up-to-date as services provided or activities performed change or as employees leave or join the department.

However, each employee must understand the order numbers available to be charged and how they relate to the work being performed. If employees find that the existing order numbers do not reflect the work performed, for example, the employee is assigned to a cross-functional project team, they should alert their supervisor. The integrity of the cost allocation process depends on employees correctly charging their time.

To ensure the correct reporting of time, the Company has developed a series of training courses that all employees are required to take. These include courses on making correct choices for cost allocations and inputting time into the SAP Portal. The following is from the "Cost Allocation Quick Reference Guide – Corporate Functions" provided to employees in connection with this training.

Follow the steps to enter your time, expenses, or purchase in the SAP Portal. Then use the **Internal Order Search Tool** to select the appropriate allocation basis and locate the correct Internal Order:

IF…	***THEN…***
You are **Direct Charging**	**Go to Step A**
You are using a **Cost Causative Allocator**	**Go to Step B**
You are using a **General Allocator**	**Go to Step C**

A. Direct Charge*

*This is the *preferred method* if practical and done consistently.

What does practical and consistent mean? The main goal is to use a regular approach for allocating your costs to prevent charging a company in different ways for the same work over time.

Note: *If direct charging **more than one company**, be sure to **provide documentation** that supports the split among companies. Please ask your immediate supervisor or contact your* Financial Business Partner *for guidance.*

A1. Use the **OPERATING COMPANY Employee Internal Order Search Tool** to locate the correct order for the work you performed.

a. Follow the steps in the SAP Portal to select:

- Your *Department (Cost Cent),* which is typically provided by your immediate supervisor.
- Your *Company & Segment.*
- The appropriate *Project.*

Note*: For a onetime event such as a storm, a specific order will be set up for multiple groups to use. In this case, certain steps will be necessary to follow that are different than what is described below. For storm accounting, please contact your immediate supervisor or* Financial Business Partner *for guidance.*

- The *Activity* for the work/service you performed, which is typically provided by your immediate supervisor.

b. Once all selections are accepted, the Internal Order(s) matching your search criteria are displayed in a list at the bottom of the search window.

A2. Follow the steps in the SAP Poral to add the correct Internal Order to your timesheet, expense report, or invoice.

Note: *If the correct accounting is not available after entering your search criteria, or if you are unsure which Internal Order to use, please contact your immediate supervisor or* Financial Business Partner *for guidance.*

A3. Go to step 4: *Follow the approved procedure to complete and submit your timesheet, expense report, or invoice.*

B. Cost Causative Allocator

If more than one cost causative allocator is listed for the activity or service provided, choose the allocator that *most closely reflects the underlying cost drivers* of the product or service, based on the activity/companies identifie

B1. Use the **SERVICE COMPANY Employee Internal Order Search Tool** to locate the correct order for the work you performed.

a. Follow the steps in the SAP Portal to select:

- Your *Department (Cost Cent),* which is typically provided by your immediate supervisor.
- The *Activity* for the work/service you performed, which is typically provided by your immediate supervisor.
- The *Allocation Basis* that is the Cost Causative Allocator that **most closely reflects the underlying cost drivers** of the product or service based on the activity/companies identified (see the table of *Cost Causative Allocators* below).
- The *Benefitting Comp(s)* that is the combination of companies that benefitted from the work or service performed.

b. Once all selections are accepted, the Internal Order(s) matching your search criteria are displayed in a list at the bottom of the search window.

B2. Follow the steps in the SAP Portal to add the correct Internal Order to your timesheet, expense report, or invoice.

Note: *If the correct accounting is not available after entering your search criteria, or if you are unsure which Internal Order to use, please contact your*

	immediate supervisor or Financial Business Partner *for guidance.*
B3.	Go to step 4: *Follow the approved procedure to complete and submit your timesheet, expense report, or invoice.*

Cost Causative Allocators – *Cost Causative Allocators examples are illustrated in the chart below . All employees are advised to have a discussion with their Financial Business Partner when determining correct cost causative allocator.*

Type of Allocation	***Typically Used By***	***Used When***	***Why?***
Dollar Value of Property Owned	• Insurance • Property Group • Safety, Health & Environment	When not directly charged: Recommending strategies to optimize the use of the property portfolio, Property Tax calculations, Insurance needs related to the various facilities, and SHES Health and Environmental compliance audits at operating company facilities	*The resources required to provide these services, and the benefits derived by the individual Client Companies, are related to the dollar value of property owned.*
Number of Customers	• Accounting Services (Revenue Accounting) • Credit and Collections • Customer Meter Services • Operations Support • SDC (Customer Care)	Revenue accounting and reconciliations, Energy Products and Procurement, Energy Solution Delivery, Customer & Market Strategy, Lead Intake, Customer Analytics when not direct charged. Some SDC Customer Care, Credit and Collections, when not direct charged or call related	*The level of work is driven by, and the client companies benefit in proportion to, the number of customers or count of service meters by utility company.*
Number of Employees	• Corporate Affairs (Employee Communications) • Employee Services/Payroll • Human Resources • Finance	When not directly charged: Employee communications, Payroll tax remittances, Safety and Health programs, communications and compliance audits at company facilities, payroll related activities, employee expense processing, and all	*The level of work is largely driven by, or the client companies benefit in proportion to, the number of employees by Company.*

Type of Allocation	*Typically Used By*	*Used When*	*Why?*
	(Insurance) • Finance (Tax) • IT Desktop Support (of the Payroll systems) • Safety, Health & Environment	HR activities	
Total T&D Expenditures	• COO • Finance Business Partners (Finance Strategy) • Network Strategy • Safety, Health & Environment	• Provide operating and capital budget decision support and management reporting activities including economic and financial analysis, and short and long-term financial forecasting • Network Strategy activities other than vegetation management and 3rd party attachments	*The level of effort spent on behalf of, and the benefits received by, the Utilities these functional areas are substantially driven by and proportionate to the combined spend on T&D O&M and Capital.*

C. General Allocator

This is typically used for products and services that directly benefit the National Grid USA enterprise, such as governance or business sustaining activities.

C1. Use the **SERVICE COMPANY Employee Internal Order Search Tool** to locate the correct order for the work you performed.

a. Follow the steps in the SAP Portal to select:

- Your *Department (Cost Cent),* which is typically provided by your immediate supervisor.
- The *Activity* for the work/service you performed, which is typically provided by your immediate supervisor.

- The *Allocation Basis* that is the General Allocator described in the table below.
- The *Benefitting Comp(s)* that is the combination of companies that benefitted from the work or service performed.

b. Once all selections are accepted, the Internal Order(s) matching your search criteria are displayed in a list at the bottom of the search window.

C2. Follow the steps in the SAP Portal to add the correct Internal Order to your timesheet, expense report, or invoice.

Note: *If the correct accounting is not available after entering your search criteria, or if you are unsure which Internal Order to use, please contact your immediate supervisor or* Financial Business Partner *for guidance.*

C3. Go to step 4: *Follow the approved procedure to complete and submit your timesheet, expense report, or invoice.*

Type of Allocation	***Typically Used By***	***Used When***	***Why?***
General (Indirect)	• ALL Service Company departments	Costs **cannot be direct charged or allocated** based on underlying cost drivers	*The new indirect general allocator is a Modified Massachusetts Formula consisting of Net Plant (1/3), Net Margin (1/3), and Net O&M Expenses (1/3).*

15. Mid-Year Changes

If a significant organizational modification occurs in mid-year, allocation pools based on historical usage statistics would be reviewed and modified at that time. In this situation, allocations using predetermined rates would be modified and implemented as soon as the new rates can be revised and uploaded into SAP.

The Asset Recovery Charge is based on allowed returns on equity; consequently, at the time that rate case decisions are issued the new allowed return on equity will be used to update the calculation of the asset recovery charge. Asset Recovery Charges can be be inquired at ServiceCompanyAccounting@NationalGrid.com

16. Creation of New Allocation Methods

As there are several options available for allocation, every attempt should be made to use one of the existing methods. If the business requires a new allocation method (examples of methods are # of employees, # of customers, square footage, etc.), they are required to reach out to the Service Company requesting the new method with a detailed explanation and the documentation providing all necessary support (including the forecasted impact) for the new calculation. Following the Service Company approval, the business should work with their Financial Business Partner (FBP) to coordinate the required Regulatory approvals with Regulatory and Legal teams.

Subsequent to approval from the various regulatory groups, the implementation of the new method will follow the annual schedule and will be implemented on April 1. The metrics will be also be required to be updated annually in line with the existing methods.

APPENDIX A

Additional Information & Policies and Procedures.

Additional information related & Policies and Procedures including (1) Sample Service Company Invoice, (2) Calculated Allocation Bases for current Fiscal Year, (3) Service Company Guidelines for Posting Journal Entries, and (4) Cost Allocation Compliance Program (CACP) and required training will be available on the infonet site. See http://us2infonet/sites/Finance/Pages/Allocations.aspx

Any related questions regarding the Cost Allocation Compliance Program (CACP) program can be directed to the CACP team at CostAllocationComplianceProgram@nationalgrid.com

Division 11-2

Request:

Referring to the response to DIV 27-1 (Docket 4770), if the Massachusetts DPU and New York PSC did not provide assurance of cost recovery for the GIS Data System Enhancements for the Company's affiliates, is it the Company's position that Rhode Island can only go forward with the PST initiative if Rhode Island provides cost recovery to the Company for the entire initial project (as reflected in the Rhode Island Only cost estimate in the PST-1 filing)? If so, please provide all the reasons (whether legal or otherwise) why this is necessary for the Company to advance the initiative.

Response:

The GIS Data Enhancement project has two elements. The first, Information System (IS) element upgrades the Company's current GIS system and software to accept and manage new data sets (*i.e.*, GIS Data Enhancement (IS)), and the second, Non-IS element creates, captures and populates the system with this enhanced data (*i.e.*, GIS Data Enhancement (Non-IS)).

The Company's New York affiliate, Niagara Mohawk Power Corporation (NMPC), is moving forward with a GIS Data Enhancement project beginning April 1, 2018 now that the New York Public Service Commission issued its Order in Cases 17-E-0238 and 17G-0239, dated March 15, 2018, adopting the terms of the Joint Proposal. Therefore, the Company proposes to move forward with a multi-jurisdictional implementation for the IS element of the program and is seeking approval of $427,000 in its first year revenue requirements in Rhode Island. Please see the Company's response to Division 6-8 and the table on Page 1 of Attachment DIV 6-8-3.

For completeness, it should be noted that the Company would seek approval for future Non-IS costs in Power Sector Transformation (PST) Plans in Fiscal Year 2021 and beyond in subsequent PST Plan filings.

(This response is identical to the Company's response to Division 34-2 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-3

Request:

Referring to the response to DIV 27-3 (Docket 4770), the question asked: "Is it the Company's understanding that implementing the GIS Data System Enhancements is or will be an important component of providing electric service within the next three years?" The question then requested: "If yes, please explain why the Company is not simply going forward with the project much like the Company is doing in its gas business for Gas Business Enablement where it did not obtain regulatory approvals prior to advancement." The Company's response to DIV 27-3 never answered the question whether it would be important, but acknowledged that there would be benefits in the next three years and the Company's response to DIV 27-4 (Docket 4770) acknowledged that there would be benefits for distribution planning even if the DSCADA & ADMS project was not implemented yet. The response to DIV 27-3 also did not answer the second question that asked why the Company is not simply going forward with the project much like the Company is doing in its gas business for Gas Business Enablement where it did not obtain regulatory approvals prior to advancement. Please provide a responsive answer to each of the unanswered questions.

Response:

This data request asks for a response to the following "unanswered" questions:

1. Is it the Company's understanding that implementing the GIS Data System Enhancements is or will be an important component of providing electric service within the next three years?

2. If yes, please explain why the Company is not simply going forward with the project much like the Company is doing in its gas business for Gas Business Enablement where it did not obtain regulatory approvals prior to advancement.

With respect to the first question, the proposed GIS Data Enhancement project is an important component of the broader Power Sector Transformation Plan portfolio of investments, and will also be an important component of providing electric service within the next three years given the manner in which electric distribution service is evolving. As a fundamental concept, Power Sector Transformation is arising as a focal point because of the need to make investments in the distribution system to meet changing requirements for electric service. Therefore, Power Sector Transformation is not an initiative that is unconnected to the provision of electric distribution service. Certain initiatives identified within Power Sector Transformation as necessary to enable modernization will directly, inevitably, and purposely be important to the provision of electric service over the next three years and beyond.

With respect to the second question, it is important to note that Gas Business Enablement is, first and foremost, a replacement of three, core operating systems that are or will soon become unsupported; thereby *necessitating* action to fulfill the Company's obligations to provide safe, reliable service. Although additional value-adding elements are included in the Gas Business Enablement Program, it was this foundational asset-replacement strategy that served as the impetus for the Company to move forward with project implementation. New systems implemented through the Gas Business Enablement Program will be used to conduct traditional, daily utility operations across three jurisdictions upon the respective in-service dates.

By comparison, the investments proposed under the Power Sector Transformation Plan, including investment in the GIS Data Enhancement project, are necessary to enable the Company to meet evolving demands on the electric distribution system into the future. The GIS Data Enhancement project will serve a dual purpose by both enabling power sector transformation and supporting the provision of electric distribution service. However, the Company has included the GIS Data Enhancement project in the Power Sector Transformation Plan because it is a *necessary prerequisite* to enabling other technologies within the Power Sector Transformation Plan. For routine electric-service operations, the GIS Data Enhancement project will *ultimately* be needed to provide service to customers (as electric service evolves), but the development of this project is not a "necessary prerequisite" for normal operations at this time. In other words, without Power Sector Transformation, the GIS Data Enhancement project would not need to move forward in the next few years. However, with Power Sector Transformation, it is necessary for the Company to undertake the GIS Data Enhancement project to enable other technologies and capabilities that are encompassed within Power Sector Transformation.

(This response is identical to the Company's response to Division 34-3 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-4

Request:

Referring to the response to DIV 8-57, DIV 8-59, and DIV 27-1 (Docket 4770), if the Commission declines to approve the proposed PST tracker (as proposed in Docket 4780) or another similar mechanism outside of base distribution rates that reconciles the costs of PST initiative, is it the Company's position that it will not proceed with the GIS Enhancements project if it does not have pre-approval of a rate recovery mechanism that assures all the costs will be recovered without any risk of regulatory lag between rate cases that might result in some annual costs not being covered in rates for a given year? If yes, please explain why. If not, are there any conditions that the Company would insist upon prior to moving forward?

Response:

Please see the Company's response to Division 11-2.

The Company has made no decision about how it would treat the GIS Data Enhancement project absent approval for funding via the PST provision.

(This response is identical to the Company's response to Division 34-4 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-5

Request:

If the Service Company made the GIS Enhancements as proposed in PST-1, is it Narragansett Electric Company's position that making such enhancements would be prudent for the electric distribution business in Rhode Island? If yes, please explain why it would be prudent. If not, please explain why it would not be prudent.

Response:

Yes. The GIS Data Enhancement project is prudent because it will facilitate our planning and operations and support the integration of Distributed Energy Resources (DERs) by interfacing with the Company's proposed Advanced Distribution Management System (ADMS) to create an integrated view of distribution operations.

(This response is identical to the Company's response to Division 34-5 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-6

Request:

Referring to the response to DIV 8-57, 8-59, and DIV 27-1 (Docket 4770), if the Commission declines to approve the proposed PST tracker (as proposed in Docket 4780) or another similar mechanism outside of base distribution rates that reconciles the costs of PST initiatives, is it the Company's position that it will not proceed with the feeder monitoring project if it does not have pre-approval of a rate recovery mechanism that assures all the costs will be recovered without any risk of regulatory lag between rate cases that might result in some annual costs not being covered in rates for a given year? If yes, please explain why. If not, are there any conditions that the Company would insist upon prior to moving forward?

Response:

The Company included the Feeder Monitoring Sensor project in the portfolio of investments comprising the Power Sector Transformation Plan because it is a foundational investment that is necessary to accommodate substantial levels of interconnected distributed generation resources, which is a main objective of Power Sector Transformation. Without Power Sector Transformation, the feeder monitoring project has the potential to be undertaken over time as a more routine investment to enable the provision of electric service. However, the timeline for project implementation would be much longer and more variable if the project is undertaken as part of routine electric operations rather than as a necessary prerequisite (or foundational investment) for Power Sector Transformation.

Given the dual-purpose nature of this particular investment, it is not the Company's position that "it will not proceed with the feeder monitoring project if it does not have pre-approval of a rate recovery mechanism that assures all the costs will be recovered without any risk of regulatory lag between rate cases that might result in some annual costs not being covered in rates for a given year." There is a workable framework in place for the recovery of traditional, routine investment in distribution infrastructure. In the future, if the Feeder Monitoring Sensor project is deemed an appropriate investment for the traditional, routine capital work plan, the Company would undertake the project and submit costs for recovery through the established recovery mechanism.

However, investments undertaken for the purposes of Power Sector Transformation are investments that should have a separate pathway for approval and recovery, at least in the initial phase. The Company is requesting approval of a separate and distinct recovery mechanism for investments undertaken to further the Power Sector Transformation Plan because these investments involve either non-traditional infrastructure initiatives or dual-purpose infrastructure initiatives that would be implemented on a shorter-term or broader-scope basis to accomplish the objectives of Power Sector Transformation than would occur if the initiatives were completed as

part of the traditional, routine capital work plan. For these investments, the Company is requesting a separate pathway for approval and recovery because regulatory support is critical for the Company in terms of (1) knowing that the Public Utilities Commission and the Division of Public Utilities and Carriers are in agreement that these are the types of new, incremental investments that the Company should be undertaking for the benefit of customers; and (2) having the resources necessary to make the investment without material degradation to the Company's financial integrity.

Power Sector Transformation is becoming an unavoidable imperative as a result of Rhode Island's strong policies encouraging the installation of distributed energy resources on the electric distribution system. However, investment is required to accomplish Power Sector Transformation and the pace and scope of that transformation will drive cost. Therefore, as the Company works to respond to the requirements and demands imposed on the electric system to support public policy changes, it is necessary and appropriate for the Company to look for both policy and cost-recovery support from the PUC and the Division as the policy decision makers.

If a decision is made in this proceeding that the Feeder Monitoring Sensor project is not appropriate for approval and cost recovery as a Power Sector Transformation investment, the Company will evaluate the project as a traditional, routine infrastructure project and will undertake the project when and if it is deemed to be an appropriate distribution project within the Company's traditional system planning framework.

(This response is identical to the Company's response to Division 34-6 in Docket No. 4770.)

Division 11-7

Request:

Referring to the response to DIV 27-4 (Docket 4770), will there be benefits to distribution planning or other distribution business benefits if the System Data Portal project is implemented prior to the GIS Enhancements being implemented or completed? If yes, please identify the benefits. If not, please explain why not.

Response:

Yes. If the System Data Portal project is implemented prior to the GIS Data Enhancement project, the Company will commence hosting capacity analysis using a manual model development process. Ultimately, when approved, the GIS Data Enhancement project will facilitate the creation and update of the power flow models required to more efficiently perform hosting capacity analysis with more frequent updates.

(This response is identical to the Company's response to Division 34-7 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-8

Request:

Referring to the response to DIV 8-57 (Docket 4770), please state whether the Company maintains that stakeholder participation makes it important that the GIS Enhancement costs be recovered through a fully reconciling PST tracker rather than base distribution rates and, if so, please explain why. In the response, please focus on what it is about the GIS Enhancement project itself that causes this need, as opposed to all PST initiatives generally.

Response:

Please see the Company's response to Division 11-3 regarding the proposal to recover the cost of the GIS Data Enhancement Project as a Power Sector Transformation Plan investment.

The Company views stakeholder participation as a critical, indispensable element of Power Sector Transformation because the pace, scope, and nature of investments undertaken to further the objectives of Power Sector Transformation are dynamics that rightfully require ongoing input across a spectrum of interests. For example, stakeholder engagement is important for the customer-facing System Data Portal, as well as in relation to the development of the Heat Map and Distributed Generation (DG) Hosting Capacity Map, which will both benefit from input by proposed users. The GIS Data Enhancement project is a necessary prerequisite for the development of these maps, which therefore necessitates implementation of the GIS Data Enhancement project on a shorter, nearer-term time frame than would be undertaken if the GIS Data Enhancement project were undertaken as a traditional, routine capital infrastructure project. Therefore, the GIS Data Enhancement project requires prioritization within the framework of Power Sector Transformation as a foundational investment, which is not required where enabling technologies such as the DG Hosting Capacity Map are not developed.

An annual review process for the Company's Power Sector Transformation Plan would enhance the opportunity for meaningful stakeholder input and allow the Company to respond to that input on a timely, productive basis.

(This response is identical to the Company's response to Division 34-8 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-9

Request:

Referring to the response to DIV 8-57 (Docket 4770), please state whether the Company maintains that stakeholder participation makes it important that the feeder monitoring project costs be recovered through a fully reconciling PST tracker rather than base distribution rates and, if so, explain why. In the response, please focus on what it is about the feeder monitoring project itself that causes this need, as opposed to all PST initiatives generally.

Response:

Please see the Company's response to Division 11-6 regarding the proposal to recover the cost of the Feeder Monitoring Project as a Power Sector Transformation Plan investment.

The Company views stakeholder participation as a critical, indispensable element of Power Sector Transformation because the pace, scope, and nature of investments undertaken to further the objectives of Power Sector Transformation are dynamics that rightfully require ongoing input across a spectrum of interests. For example, over time, the expectation is that more granular levels of system monitoring may be needed both for distribution system performance and potentially for distributed energy resource (DER) measurement and verification. Therefore, the sensor-use cases to be considered going forward are potentially a topic of stakeholder engagement.

In addition, stakeholder engagement is important for the customer facing System Data Portal, including for the Heat Map and the Distributed Generation (DG) Hosting Capacity Map development, which will benefit from input by proposed users. The Feeder Monitoring Sensor project will provide improved information as an input for the development of these maps, which therefore necessitates implementation of the project on a shorter, nearer-term time frame than would be undertaken if the project were reviewed as a traditional, routine capital infrastructure project. Therefore, the Feeder Monitoring project requires prioritization within the framework of Power Sector Transformation as a foundational investment, which is not required where enabling technologies such as the DG Hosting Capacity Map are not developed.

An annual review process for the Company's Power Sector Transformation Plan would enhance the opportunity for meaningful stakeholder input and allow the Company to respond to that input on a timely, productive basis.

(This response is identical to the Company's response to Division 34-9 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-10

Request:

Referring to PST-1, Bates page 45, there is a statement about the System Data Portal, as follows: "The functionality and the look and feel of the portal will be similar to a system data portal recently deployed in National Grid's New York jurisdiction. Although utilization details continue to evolve in New York, best practices and lessons learned will be used to refine efforts in Rhode Island to the furthest extent possible." Please explain how the costs of the project were recovered in rates.

Response:

The costs for the System Data Portal project in New York are being recovered through the general rate case on a forward looking basis for the period Fiscal Year 2019 through Fiscal Year 2021.

(This response is identical to the Company's response to Division 34-10 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-11

Request:

Has the Company's affiliate in New York implemented GIS Enhancements similar to what is being proposed as a PST initiative for the Company in Rhode Island? If yes, please describe and note any general differences (if any). If yes, please describe how the costs of the GIS Enhancements have been recovered in rates.

Response:

Yes. As noted previously in the Company's response to Division 11-2, the Company's New York affiliate, Niagara Mohawk Power Corporation (NMPC), is moving forward with a GIS Data Enhancement project beginning April 1, 2018 now that the New York Public Service Commission issued its Order in Cases 17-E-0238 and 17G-0239, dated March 15, 2018, adopting the terms of the Joint Proposal. Both the Rhode Island Power Sector Transformation (PST) Plan and NMPC GIS Data Enhancement project have two elements. The first element, the Information System (IS) element, upgrades the Company's current GIS system and software to accept and manage new data sets (*i.e.*, GIS Data Enhancement (IS)). The second, non-IS element creates, captures, and populates the system with this enhanced data (*i.e.*, GIS Data Enhancement (Non-IS)). The IS project element is predominately the same in both jurisdictions, but the non-IS project element will be different and specific to the individual jurisdictions, because it requires state-specific information. NMPC GIS Data Enhancement project cost recovery will occur on a forward looking basis through base distribution rates.

(This response is identical to the Company's response to Division 34-11 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-12

Request:

Referring to the response to DIV 27-7 (Docket 4770), the response indicates that the Cybersecurity projects proposed in PST-1 would not provide any benefits to the Company's affiliates in Massachusetts and New York. Please reconcile this statement with Table 3-21, which shows a lower cost to Rhode Island in a multi-jurisdictional scenario and the statement that there would be significant cost synergies if investments were coordinated. Is there a portion of the capital costs that would create a foundational system that could be used by the affiliates for their benefit at a later date? How is it possible that no future benefits could accrue to the other affiliates when the capital costs would be approximately $10 million higher in the RI scenario, compared to the multi-jurisdictional?

Response:

If the Public Utilities Commission directed the Company to implement the Cybersecurity projects for Grid Modernization and the Company implemented the projects in Rhode Island, but no other jurisdictions approved their respective Grid Modernization Cybersecurity projects (*i.e.*, Rhode Island Only deployment scenario), then the Rhode Island Cybersecurity projects would not benefit the Company's affiliates in Massachusetts or New York. If other jurisdictions approved their respective Grid Modernization Cybersecurity projects (*i.e.*, Multi-Jurisdiction deployment scenario), then all jurisdictions, including Rhode Island, would benefit from sharing fixed costs for certain elements. Comparing Table 3-20 with Table 3-21 in Section 3.7 of Schedule PST-1, Chapter 3 - Modern Grid (Bates Page 63 of PST Book 1) illustrates the project cost savings that would result in National Grid USA Service Company, Inc. rental expense savings because of sharing Cybersecurity fixed costs with the Company's New York affiliate, Niagara Mohawk Power Corporation (NMPC).

NMPC is moving forward with a Grid Modernization Cybersecurity project with approval of expenditures starting in Fiscal Year 2020 now that the New York Public Service Commission issued its Order in Cases 17-E-0238 and 17G-0239, dated March 15, 2018, adopting the terms of the Joint Proposal. Therefore, if authorized in Rhode Island, the Company now expects to move forward with Power Sector Transformation Plan Cybersecurity projects in a Multi-Jurisdiction Scenario.

(This response is identical to the Company's response to Division 34-12 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-13

Request:

Referring to the response to DIV 27-8 (Docket 4770), the question asked if the advanced analytics will be an important component of providing electric distribution service within the next three years. It also asked if the answer was yes, to explain why the Company is not simply going forward with advanced analytics much like the Company is doing in its gas business for Gas Business Enablement where it did not obtain regulatory approvals prior to advancement. The response did not answer the last question. Please provide a responsive answer.

Response:

Gas Business Enablement is a replacement of three, core operating systems that are, or will soon become, unsupported, thereby *necessitating* action to fulfill the Company's obligations to provide safe, reliable service. Although additional value-adding elements are included in the Gas Business Enablement Program, it was this foundational asset-replacement strategy that served as the impetus for the Company to move forward with project implementation. New systems implemented through the Gas Business Enablement Program will be used to conduct traditional, daily utility operations across three jurisdictions upon the respective in-service dates.

By comparison, the investments proposed under the Power Sector Transformation Plan, including investment in advanced analytics, are necessary to enable the Company to meet evolving demands on the electric distribution system into the future. The Company has included the investment in advanced analytics in the Power Sector Transformation Plan because it is a *necessary prerequisite* to enabling other technologies within the Power Sector Transformation Plan. Although advanced analytics may ultimately be used for routine electric-service operations in the future (as electric service evolves), the development of this project is not a "necessary prerequisite" for normal operations at this time.

(This response is identical to the Company's response to Division 34-13 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-14

Request:

Referring to the response to DIV 27-7 (Docket 4770), the response indicates that the advanced analytics project proposed in PST-1 would not provide any benefits to the Company's affiliates in Massachusetts and New York. Please reconcile this statement with Table 3-17, which shows a lower cost to Rhode Island in a multi-jurisdictional scenario. Is there a portion of the capital costs that would create a foundational system that could be used by the affiliates for their benefit at a later date?

Response:

Note: The Company assumes the question meant to refer to DIV-27-9 not DIV 27-7.

If the Public Utilities Commission directed the Company to implement the Advanced Analytics project for Grid Modernization and the Company implemented the project in Rhode Island, but no other jurisdictions approved their respective Grid Modernization Advanced Analytics projects (*i.e.*, Rhode Island Only deployment scenario), then the Rhode Island Advanced Analytics project would not benefit the Company's affiliates in Massachusetts or New York. If other jurisdictions approved their respective Grid Modernization Advanced Analytics projects (*i.e.*, Multi-Jurisdiction deployment scenario), then all jurisdictions, including Rhode Island, would benefit from sharing fixed costs for certain elements. Table 3-17 in Section 3.5 of Schedule PST-1, Chapter 3 - Modern Grid (Bates Page 60 of PST Book 1) illustrates the potential cost savings, in the form of National Grid USA Service Company, Inc. rental expense because of sharing Advanced Analytics fixed costs with National Grid affiliates in other jurisdictions. In addition, there is the potential benefit of reduced equipment cost due to quantity discounts.

(This response is identical to the Company's response to Division 34-14 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-15

Request:

Referring to the response to DIV 27-10 (Docket 4770), the response indicates that early implementation of the System Data Portal beyond the scope of the SRP "is limited by the Company's ability to secure and train the human resources necessary to perform the additional work." Is the Company saying that it is not capable of securing and training the human resources in the Rate Year to implement beyond the scope of the SRP because of this limitation? If so, please explain why not. If not, please explain what was meant by noting this as a limitation.

Response:

No. The Power Sector Transformation (PST) Plan System Data Portal project within the Rate Year is timed such that the Company can use the System Reliability Procurement (SRP) System Data Portal effort to transition effectively to the Rate Year effort. Division 9-10 asked if the Company could implement the PST Plan System Data Portal work sooner. The Company noted this limitation to identify that progressing the PST System Plan Data Portal work sooner may eliminate learning and transition efficiencies.

(This response is identical to the Company's response to Division 34-15 in Docket No. 4770.)

Prepared by or under the supervision of: Robert Sheridan

Division 11-16

Request:

Referring to the response to DIV 27-5 (Docket 4770), why would the upgrades to the GIS and software not be capitalized?

Response:

The costs associated with the GIS Data Enhancement project are primarily for data configuration work, which are accounted for as operating expense (OPEX). There are minimal anticipated software/hardware additions to support new capabilities for the connected model. These additions do not meet the threshold for capitalization and, therefore, are accounted for as OPEX as well.

(This response is identical to the Company's response to Division 34-16 in Docket No. 4770.)