

Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: US Network Programme





		1110	estment ked	quest Sum	mary - IS	US FIS	CAL YEAR	R 2018	
INV ID:	4496 Proje	ct Name: <i>US Net</i>	vork Programm	пе					
Program:	Service Strategy Ro	admap							
Sponsor:	John Gilbert		Tit	tle: <i>Global Head</i>	l IS Service Deliv	ery, Global IS			
Relationship Manager:	Graham Pool		Tir	tle: IS Relations	hip Manager, Gl	obal IS			
Prog Delivery	Tom Cunningham		Tir	tle: Head of Pro	gramme Deliver	y, Global IS			
Manager:									
Paper Author:	Nicola Pennington /	Steve Trezza	Tir	tle: Business Co	nsultant - Corpo	rate IS / Service S	trategy		
'S Roadmap Category:	IS Assurance		Bus	siness Area: Cor	orate IS	Portfoli	o: IS for IS		
In-Flight Droipet?	Invest Classification:	gh <i>Categ</i>	ory: Policy Driven	ı	rimary Policy Dr	iver: Environmer	it	Region: Glo	bal
Growth Playbook Pr	roject? Shaping	Our Future Project?	☐ Energy Effi	iciency Project?					
The US Network Pro TBD Network	The context for the programme consists of the context for the programme consists of the context for the consists of the context for the contex	tion Monitoring with Invest to Reduce pletion - CEMS, vers	ocess the project a ing of the National port the Utility of the	l Grid businesses					
Project Scope: Expla	in what is in scope and	what is not in scope	for the project						
Project dependencie Basic Project Assum,	es: Identify any core pro es will be developed as otions: these programme will	the individual proje	cts start up.		•				
Basic Project Assum, The projects within to	es will be developed as	the individual proje	cts start up.		•	FY 2023	FY 2024	FY 2025	Total
Basic Project Assum, The projects within the project withi	es will be developed as potions: these programme will ct Costs by Fisca	the individual projects the individual projects the prioritized and continue of the prioritize	cts start up.	ears to complete		FY 2023 0.000	FY 2024	FY 2025	Total 6.1
Basic Project Assum, The projects within to	otions: these programme will ct Costs by Fisca Years FY 2018	the individual projects the individual projects be prioritized and constitution of the prioritized and	uld take multiple y	ears to complete	FY 2022				

Indicative Project Costs by Delivery Phase

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(\$M)	Star	rt-up	R &	& D	D	& 1	Clos	sure	Total
СарЕх				0.500		6.175			6.675
ОрЕх		0.050		0.050		0.170		0.010	0.280
Project Ber	nefits - Type I	only FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Туре I - СарЕх									0.000
Type I - OpEx									0.000
Revenue Generation									0.000

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. The impacts of this program on the Customer are based on a number of areas:

- Improves reliability and productivity
- Better support for Jurisdictional and business function initiatives
- Enables a better Customer Experience

These Network Improvements will better help employees to use applications with more functionality in a more intuitive manner. The Jurisdiction and business function will be able to utilize a more reliable and resilient application, that will help to provide customers with more options when interacting with the Company.

- Transformation implemented a new Verizon network and migrated the majority of sites onto this new network. A number of sites were not migrated at the time because they were expected to be closed or significantly reduced in size.
- Provision of a fit for purpose network Legacy network infrastructure no longer meets the functional requirements of business users.
- Provision of a fully supported reliable network Removes reliance on aged infrastructure that doesn't meet specifications and is no longer supported ensuring that the network continues to be reliable and fit for purpose.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.280	-24.4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cost	6.675	-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	68.689 %	-22.5%	-2.025
Financial Control	Low	6.2%	0.062	Union/Labor Relations	does not apply	-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Medium	-10.6%	-0.318
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	High	-6.6%	-0.594
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Medium	-14.9%	-0.447
Reliability	Medium	10.9%	0.327				
Customer & Community Responsiveness	Medium	5.3%	0.159				
Employee Satisfaction	Medium	4.6%	0.138				
Mitigates a Corporate Risk / Risk of not Doing	High= 40 or more	8.9%	0.801				
Jurisdictional Engagement	High	8.2%	1				
	Benej	fit Score:	2.26		Ca	ost Score:	-6.59

Overall Priority Score: -4.325

Investment Risk and Complex	itv

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Project Risk Score:	46	Risk Score Description: Impact score - 6 failure of active director y would affect all users and all business processes Likelihood score 7 - due to out of support hardware
Project Complexity Score::	14	Project Complexity Score Description:

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his project will be resourced using Solution Delivery Centre (SDC) partners, Systems integrator and IS resources.	esourcing Strategy:	:					
			ery Centre (SDC) partners,	Systems integrator and IS re	esources.		

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Attached Supporting Do	ocuments		
Recommendation Sign-o	ff		
Role	Name	Title	Date
Business Project Sponsor	John Gilbert	Global Head IS Service Delivery, Global IS	
Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			national grid



Planning & Performance Management ${\scriptstyle \blacktriangleright}$ FY18 - Investment Request Summaries - IRSs: US VSTIG Programme





	grid		Inve	estment Rec	quest Sum	mary - IS I	US FI	SCAL YEAR	2018	
NV ID:	4498	B Project N	ame: US VSTIC	G Programme						
Program:	Service	e Strategy Roadm	ар							
ponsor:	John G	iilbert		Tit	tle: <i>Global Head</i>	d IS Service Delive	ery, Global IS			
Relationship Ma	anager: Graha	m Pool		Tit	tle: IS Relations	hip Manager, Glo	obal IS			
Prog Delivery Manager:	Tom C	unningham		Tit	tle: Head of Pro	ogramme Deliver	y, Global IS			
Paper Author:	Nicola	Pennington / Stev	e Trezza	Tit	tle: Business Co	nsultant - Corpoi	rate IS / Service S	Strategy		
S Roadmap Cate	tegory: IS Assi	urance		Busi	iness Area: Corp	porate IS	Portfol	io: IS for IS		
In-Flight Proje	iect? Invest Classifica	Mediu	ım <i>Catego</i>	ory: Policy Driven	F	Primary Policy Dr	iver: Reliability		Region: Glob	al
Growth Playb	•	_	Future Project?	Energy Effi	ciency Project?					
The US VSTIG TBD U: 4274 \ TBD V: TBD V: TBD V: TBD V:	Programme col JS DMZ Risk Avo VSTIG Hardware VSTIG Infrastruct	Refresh ure Refresh onal Load Balance Refresh	-	d information						
				ocess the project ac k infrastructure and		the Internet gate	way (VSTIG – Ve	rizon Telecommu	nications Secure I	nternet
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СарЕх				0.300		4.800			5.100
ОрЕх		0.030		0.050		0.110		0.010	0.200
Project Ber	nefits - Type I	only FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Type I - CapEx									0.000
Туре І - ОрЕх									0.000
Revenue									0.000

Kev Business Benefits:

Generation

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. The impacts of this program on the Customer are based on a number of areas:

- Improves reliability and productivity
- Better support for Jurisdictional and business function initiatives
- Enables a better Customer Experience

These VSTIG Improvements will better help employees to use applications with more functionality in a more intuitive manner. The Jurisdiction and business function will be able to utilize a more reliable and resilient application, that will help to provide customers with more options when interacting with the Company.

Increased bandwidth and resilience - Delivery of software defined Wide Area Network technnlogy will allow IS to deliver hiigh bandwidth business class service through low cost commmodity broadband internet servvices. In combination witth cloud based security tools, this teechnology will support high speed Internet web browsing and use of high bandwidth cloud services even from the smallest locations. The tangible benefits that the user will experiencee is faster PC start up times, fast file transfers, more responsive applicatiions, and access to bandwidth intensive Internet and cloud based sservices like, YouTube, WebEx, andd Office 365.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.200	-24.4%	732
CapEx Annual Savings		5.1%	0	CapEx Cost	5.100	-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	32.941	% -22.5%	-2.025
Financial Control	Low	6.2%	0.062	Union/Labor Relations	does not apply	y -9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Low	-10.6%	-0.106
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	High	-6.6%	-0.594
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Employee Satisfaction	Medium	4.6%	0.138				
Mitigates a Corporate Risk / Risk of not Doing	High= 40 or more	8.9%	0.801				
Jurisdictional Engagement	High	8.2%	1				
	Bene	fit Score:	2.26			Cost Score:	-4.91

Overall Priority Score: -2.649

Investment Risk and Complexity

		•
Project Risk Score:	46	Risk Score Description: Impact score - 6 failure of active director y would affect all users and all business processes Likelihood score 7 - due to out of support hardware
Project Complexity Score::	14	Project Complexity Score Description:

Key Risks Description: Provide detail on project risks & mitigation strategy:

Now that customers are demanding new services, without these Network Improvements in our underlying technology infrastructure, we cannot deliver these new strategic programs.

This program is an enabler for projects that require additional bandwidth. Mitigates risk of poor performance of internet connections as network reaches full capacity. Mitigates of risk of internet service failure as a result of VSTIG Data Center failure.

Drojecte: 4400 I	IC VICTIC Programma			г		
-	US VSTIG Programme			Select All Select All	Companies Clear All Co Gas Select All El	
Has a	dependency on IS Pro	oject;		Gen	Gus — Select All El	ectric — Serect
Has a	dependency on IS Pro	oject;		✓ National	Grid USA Parent	
Has a	dependency on IS Pro	oject;			Energy Development Corpora	ation
Here w					Services Inc.	
Has a	dependency on IS Pro	oject;		✓ KeySpan	Energy Corp Energy Delivery New York	
Has a	dependency on IS Pro	oject;			Energy Delivery New York Energy Delivery Long Island	
Has a	dependency on IS Pro	oject;		KeySpan	Generation LLC (PSA)	
					Glenwood Energy Center	
Business Initia	ative Dependencies				Port Jefferson Energy Center Energy Trading Svc LLC	
Projects: 4498 - 1	US VSTIG Programme				Mohawk Power Corp- Electric	Distribution
Has a	dependency on Biz In	itiative,			Mohawk Power Corp - Gas	
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Has a	dependency on Biz In	nuuuve,			usetts Electric Company usetts Electric Company - Tra	nsmission
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FY18 - Investment Request Summaries - IRSs - US VSTIG Programme

6/14/2017

Recommendation Sign-	off		
Role	Name	Title	Date
Business Project Sponsor	John Gilbert	Global Head IS Service Delivery, Global IS	
Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			national grid

FY18 - Investment Request Summaries - IRSs - US Wireless Programme



6/14/2017

Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: US Wireless Programme



NV ID:		Inve	stment Requ	est Summ	ary - IS l	JS FIS	CAL YEAR	2018	
	4499 Proj	ject Name: US Wire	less Programme						
rogram:	Service Strategy Re	oadmap							
ponsor:	John Gilbert		Title:	Global Head IS	Service Delive	ery, Global IS			
elationship Manage	r: Graham Pool		Title:	IS Relationship	Manager, Glo	bal IS			
Prog Delivery Manager:	Tom Cunningham		Title:	Head of Progra	amme Delivery	ı, Global IS			
aper Author:	Nicola Pennington	/ Steve Trezza	Title:	Business Consu	ıltant - Corpoi	ate IS / Service S	trategy		
S Roadmap Category	: IS Assurance		Busine	ss Area: Corpor	ate IS	Portfoli	o: IS for IS		
In-Flight Project?	Invest Classification:	Medium Catego	ry: Policy Driven	Prin	nary Policy Dr	ver: Reliability		Region: Globo	al
Growth Playbook F	Project? Shapin	ng Our Future Project?	Energy Efficien	ncy Project?					
NG-M Imple Wireless Bri Wireless LA Wireless LA	ogramme consists of the ementation idge Replacements	roject with background he following projects:	Information						
In addition, this im National Grid Yards at risk of failure. Project Scope: Explo	plementation will strer s have become depend ain what is in scope an	erage and capacity of tingthen the resilience of lent on the use of WLA and what is not in scope on ality for the core sen	f the WLAN by provid Ns for communication for the project	ing additional co	orporate and	guest network Da	ta Center infrast	tructure.	
Project Dependence		rogram or project depe as the individual project		ude INVP numbe	ers if known				
Project dependenc	•	ealth and capability ch	allenges while enabli	ng National Gric	d's strategic bu	ısiness objective:	i.		
Project dependence Basic Project Assum This multi-year inve	•		iallenges while enabli	ng National Gric	d's strategic bu	isiness objective:	s.		
Basic Project Assum This multi-year inve	estment addresses IS h	al Year			d's strategic bu	isiness objective:	FY 2024	FY 2025	Total
Basic Project Assum This multi-year inve	ect Costs by Fisca or Years FY 2018	al Year						FY 2025 0.000	
Basic Project Assun This multi-year inve	ect Costs by Fisca or Years FY 2018	al Year 3 FY 2019	FY 2020 F	Y 2021	FY 2022	FY 2023	FY 2024		Total 4.9.
Project dependence Basic Project Assum This multi-year invention Indicative Project	ect Costs by Fisca or Years FY 2018 1. 0.	al Year 3 FY 2019 950 1.500	FY 2020 F 1.500	Y 2021 0.000	FY 2022 0.000	FY 2023	FY 2024 0.000	0.000	4.9.

4.650

0.300

CapEx

4.950

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FY18 - Investment Request Summaries - IRSs - US Wireless Programme

OpEx		0.030		0.060		0.220		0.010	0.320
Project Ber	nefits - Type I	only							
(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Туре І - СарЕх									0.000
Type I - OpEx									0.000
Revenue Generation									0.000

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. The impacts of this program on the Customer are based on a number of areas:

- Improves reliability and productivity
- Better support for Jurisdictional and business function initiatives
- Enables a better Customer Experience

These Wirelesss Improvements will better help employees to use applications with more functionality in a more intuitive manner. The Jurisdiction and business function will be able to utilize a more reliable and resilient application, that will help to provide customers with more options when interacting with the Company.

Delivery of pervasive Wireless Networks with the capacity to support a multitude of devices will be key to supporting a flexible and mobile field worker or customer agent. Everyday more wireless only devices are coming to market that can allow National Grid to deliver serviices in a more effective and efficientt manner (e. g. iPads, specialized tablets, sensors, equipment controllers). The implementation of secure wireless networks that support this environment will be critical to improved efficienciees the businness will be challenged to achieve.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.320	-24.4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cost	4.950	-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	21.919 %	-22.5%	-2.025
Financial Control	does not apply	6.2%	0	Union/Labor Relations	does not apply	-9.8%	0
Soft Financial Benefits	does not apply	3.8%	0	Dependencies	Low	-10.6%	-0.106
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	High	-6.6%	-0.594
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Medium	-14.9%	-0.447
Reliability	Medium	10.9%	0.327				
Customer & Community Responsiveness	Low	5.3%	0.053				
Employee Satisfaction	Medium	4.6%	0.138				
Mitigates a Corporate Risk / Risk of not Doing	High= 40 or more	8.9%	0.801				
Jurisdictional Engagement	High	8.2%	1				
	Bene	fit Score:	2.06		Co	st Score:	-6.38

Overall Priority Score: -4.319

Investment Risk and Complexity

Project Risk Score:	46	Risk Score Description: Impact score - 6 failure of active director y would affect all users and all business processes Likelihood score 7 - due to out of support hardware
Project Complexity Score::	14	Project Complexity Score Description:

Key Risks Description: Provide detail on project risks & mitigation strategy:

Now that customers are demanding new services, without these Wireless Improvements in our underlying technology infrastructure, we cannot deliver these new strategic programs.

Projects: 4/00 I	JS Wireless Programme				II Companies 🔲 Clear All Co		
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Has a	dependency on IS Pro	,		Gen			
Has a	dependency on IS Pro	oject;		✓ Nationa	Il Grid USA Parent		
Has a	dependency on IS Pro	oject;			n Energy Development Corpor	ration	
Has a	dependency on IS Pro	oject;			n Services Inc. n Energy Corp		
Has a	dependency on IS Pro	viact			n Energy Delivery New York		
					n Energy Delivery Long Island		
Has a	dependency on IS Pro	oject;			n Generation LLC (PSA) n Glenwood Energy Center		
Danaina ana Indiki	ativa Danandanaisa			KeySpar	n Port Jefferson Energy Center	r	
	ative Dependencies				n Energy Trading Svc LLC		
rojects: 4499 - 1	US Wireless Programme dependency on Biz In	itiativa			Mohawk Power Corp- Electric Mohawk Power Corp - Gas	c Distribution	
Has a	иерепиенсу он ыз т	mative,			Mohawk Power Corp - Transi	mission	
Has a	dependency on Biz In	itiative,			husetts Electric Company		
u	dependency on Biz In	itiative.			husetts Electric Company - Tra ket Electric Company	ansmission	
Has a	dependency on biz m	radave,			Gas Company		
Has a	dependency on Biz In	itiative,		Colonia	l Gas Company		
103 0					insett Gas Company insett Electric Company		
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	Project Relationship:			✓ New En	gland Power Company - Trans		
Minor Works					New England Hydro - Trans CorpNew England Electric Trans Corp		
ated Projects:					gand Electric Trans Corp		
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FY18 - Investment Request Summaries - IRSs - US Wireless Programme

6/14/2017

Recommendation Sign-	off		
Role	Name	Title	Date
Business Project Sponsor	John Gilbert	Global Head IS Service Delivery, Global IS	
Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			national grid



Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: Monitoring and Alerting





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national grid		Invest	ment Req	uest Sum	mary - IS	US FI	SCAL YEAR	R 2018	
INV ID:	4493 Project N	lame: <i>Monitorin</i> g			-				
Program:	Service Strategy Roadr	пар							
Sponsor:	John Gilbert		Titl	le: <i>Global Head</i>	d IS Service Deliv	ery, Global IS			
Relationship Manager:	Graham pool		Titl	le: IS Relations	hip Manager, Gl	obal IS			
Prog Delivery	Tom Cunningham		Tit	le: Head of Pro	gramme Deliver	ry, Global IS			
Manager: Paper Author:	Nicola Pennington / Ste	ve Trezza				rate IS / Service S	Strateav		
aper riation.	Wedia i emmigeon / See	VC 11C22G	110	e. Business co	iisuituiit eoipo	rate 137 Service s	accgy		
IS Roadmap Category:	IS Assurance			ness Area: Cor	oorate IS	Portfol	io: IS for IS		
	nvest Classification:	um Category:	Policy Driven	ı	Primary Policy D	river: Reliability		Region: Glo	bal
Growth Playbook Pro	oject? Shaping Ou	ır Future Project?	Energy Effic	ciency Project?					
Step-change reduction • Earlier detect • Fewer false • Faster iden • Faster diag • Strong opp • Real-time of • Ability to to Project Rationale: High 1. Service availa 2. Triage of incidents	on in incident MTTR (Mea ection of performance iss e alarms (P1/P2) by havin tification of fault domain nosis of faults ortunity to improve IS re lashboards shared with o race individual user perfo ghlight business challenge bility data presented to of lents is slow and inaccura- slow to diagnose (MTTR)	n Time To Recover): ues g empirical evidence (server/citrix/netwo putation: ustomer will build tra rmance history will a e, capability or proce ustomers is known to the due to a lack of En	of scale of prob irk etc.) ansparency show illow validation of ss the project acts to be of poor quand User Experier	lem (#users imposed from the second from the s	pacted, impact c ance, and true s ncident data and	cale of slowdow	ns/outages		
	ftware and infrastructure			lot IS services.					
In: Select, procure so				lot IS services.					
In: Select, procure so Out: Ongoing licensin Project Dependencie: May require servers,	ftware and infrastructure	ion across other IS se am or project depend dwidth	ervices lencies, please in	nclude INVP nur	nbers if known				
In: Select, procure so Out: Ongoing licensin Project Dependencie: May require servers, Eco-partners willing to	ftware and infrastructure ng/support (RTB), expans s: Identify any core progra storage and internet ban to accept tight integration	on across other IS se am or project depend dwidth of expertise into the	ervices lencies, please in	nclude INVP nur	nbers if known				
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In: Select, procure so Out: Ongoing licensin Project Dependencie: May require servers, Eco-partners willing to Basic Project Assump Pilot services have so Indicative Project (\$M) Prior	ftware and infrastructure and infrastructure and infrastructure and infrastructure and infrastructure are so accept tight integration accept tight integration accept and infrastructures of workload data to accept the control of the	ion across other IS section or project dependent dwidth an of expertise into the chart can be tapped.	ervices lencies, please in	nclude INVP nur		FY 2023	FY 2024	FY 2025	Total 2.4
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FY18 - Investment Request Summaries - IRSs - Monitoring and Alerting

				•		J	J		
(\$M)	Star	rt-up	R	& D	D	& 1	Clo	sure	Total
СарЕх				0.100		2.350			2.450
ОрЕх		0.010		0.035		0.150		0.005	0.200
Project Bon	efits - Type I	only							
(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Туре І - СарЕх									0.000
Type I - OpEx									0.000
Revenue Generation									0.000

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. The impacts of this program on the Customer are based on a number of areas:

- Improves reliability and productivity
- Better support for Jurisdictional and business function initiatives
- Enables a better Customer Experience

Employees will be able to use an application with more functionality in a more intuitive manner. The Jurisdiction and business function will be able to utilize a more reliable and resilient application, that will help to provide customers with more options when interacting with the Company.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.200	-24.4%	732
CapEx Annual Savings		5.1%	0	CapEx Cost	2.450	-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	21.429 %	-22.5%	-2.025
Financial Control	does not apply	6.2%	0	Union/Labor Relations	does not apply	-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Low	-10.6%	-0.106
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	Low	-6.6%	-0.066
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Low	-14.9%	-0.149
Reliability	Low	10.9%	0.109				
Customer & Community Responsiveness	Low	5.3%	0.053				
Employee Satisfaction	Low	4.6%	0.046				
Mitigates a Corporate Risk / Risk of not Doing	High= 40 or more	8.9%	0.801				
Jurisdictional Engagement	High	8.2%	1				
	Bene	fit Score:	1.79		Cos	st Score:	-4.09

Overall Priority Score: -2.301

Investment Risk and Complexity

		•
Project Risk Score:	42	Risk Score Description: Impact score - 5 failure of active director y would affect all users and all business processes Likelihood score 7 - due to out of support hardware
Project Complexity Score::	14	Project Complexity Score Description:

Key Risks Description: Provide detail on project risks & mitigation strategy:

Now that customers are demanding new services, without this investment in our underlying technology infrastructure, we cannot deliver these new strategic programs.

IS Project Depende	ncies if you don't see a project in the drop-down please contact	Benefiting Operating Companies: Check all that apply				
IS Projects: 4493 - Monitor	ing and Alerting		Select All Companies Clear All Companies			
1. Has a	dependency on IS Project;					
2. Has a	dependency on IS Project;		Select All Gas Select All Electric Select All Gen			
3. Has a	dependency on IS Project;		☐ National Grid USA Parent			
4. Has a	dependency on IS Project;		KeySpan Energy Development CorporationKeySpan Services Inc.			
5. Has a	dependency on IS Project;		KeySpan Energy Corp			
6. Has a	dependency on IS Project;		KeySpan Energy Delivery New York KeySpan Energy Delivery Long Island			
Business Initiative	Dependencies		KeySpan Generation LLC (PSA) KeySpan Glenwood Energy Center			
IS Projects: 4493 - Monito			 KeySpan Port Jefferson Energy Center KeySpan Energy Trading Svc LLC 			
	dependency on Biz Initiative,	ReySpan Energy Trading Svc LLC Niagara Mohawk Power Corp- Electric Distribution				
1. Has a			☐ Niagara Mohawk Power Corp - Gas			
2. Has a	dependency on Biz Initiative,	Niagara Mohawk Power Corp - Transmission				
	dependency on Biz Initiative,		Massachusetts Electric Company			
3. Has a			Massachusetts Electric Company - Transmission Nantucket Electric Company			
4. Has a	dependency on Biz Initiative,		Boston Gas Company			
			Colonial Gas Company			
Project Relationshi	ne.		Narragansett Gas Company			
Project Relationsiii	Project Relationship:		Narragansett Electric Company Narragansett Electric Company - Transmission			
Minor Works	Troject helationship.		New England Power Company - Transmission			
Related Projects:			New England Hydro - Trans Corp			
			New England Electric Trans Corp			
			☐ NG LNG LP Regulated Entity			
Enabling IS Capabil	ities check all that apply					
☐ Enterprise Content N	Management (ECM)	Enterprise Me	obility			
Comprehensive Inte	gration Services (CIS)	Reporting and	d Analytics			
Hybrid Cloud		Networks				
☐ Next Gen Workplace	•					
Key Milestone Date	Select the 1st, 15th or last day of the month					
Begin	Begin Begin Development &	Begin				
		er Acceptance Testing	Go Live Project Completion Project Closure			
April, 2017		Nov	vember, 2017			
Business Resource	Estimates: # of Full Time Equivalents					
Start-up Re	equirements & Deign Develop & Implement Bu	usiness Resources UAT Go	Live Readiness Post Go Live Support 0 0			
	·					
Resourcing Strategy:						
Attached Supporti	ing Documents					

FY18 - Investment Request Summaries - IRSs - Monitoring and Alerting

Recommendation Sign-	off		
Role	Name	Title	Date
Business Project Sponsor	John Gilbert	Global Head IS Service Delivery, Global IS	
Business Relationship Manager	Graham pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	



(\$M)

СарЕх

Start-up

Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: RSA Re-platform





national	grid			Inv	estment Ro	equest Sui	mmary - IS	US FIS	SCAL YEAR	2018	
INV ID:		4270	Project Nar	ne: <i>RSA Re</i>	-platform						
Program:	S	Service Stra	ntegy Roadma _l	p							
Sponsor:	J	ohn Gilbert	t			Title: Global He	ead IS Service Deliv	very, Global IS			
Relationship M	lanager: G	Graham Pod	ol			Title: IS Relatio	nship Manager, Gi	lobal IS			
Prog Delivery Manager:	7	om Cunnin	gham			Title: Head of P	rogramme Delivei	ry, Global IS			
Paper Author:	٨	licola Penn	ington / Steve	Trezza		Title: Business	Consultant - Corpo	orate IS / Service S	Strategy		
IS Roadmap Ca	itegory: I	S Assuranc	е		В	Business Area: Co	orporate IS	Portfol	io: IS for IS		
In-Flight Pro	inve oject? Clas	est ssification:	Medium	n Categ	gory: Policy Drive	n	Primary Policy D	river: Reliability		Region: US	
Growth Play	vbook Projed	ct?	Shaping Our F	uture Project	? Energy E	Efficiency Project	?				
to another p passwords th smartphone	latform. O hrough a sm app, but al	ne option in artphone so includes	is to move to L app, txt messa a risk based a	JIS, Verizon's or ging, and IVR outhentication	cloud based mana . The other optio engine that can i	aged password so in is to use an RS increase of decre	ove off the service ystem that utilizes A service that not ease the password reduce the overhe	hard tokens (not only provides on requirements ba	RSA tokens) and e time password sed on your loca	I can also provide s via RSA token or	a
RSA token di	istribution a opportunity	and suppor for NG to r	t is expensive a	and slow. Ver		of the MOTP cor	overging with an u				
			cope and what ess to perform		e for the project e locations.						
			core program ed before this		pendencies, pleas art.	e include INVP n	umbers if known				
Basic Project There is 80%			oplications req	uiring a mobil	e remote access s	service that is no	t currently availab	ole on the existing	g platform.		
Indicative	Project	Costs by	, Eiseal Voa	v							
(\$M)	Prior Yea	•	/ FISCAI YEA FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
	11101 120	лі З — Г	0.280	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.28
				0.000		0.000		0.000	0.000	0.000	0.20
арЕх			() (12(1)								U U.
			0.020	0.150		0.150		0.150	0.150	0.150	1.10

D & I

0.230

Closure

R & D

0.050

Total

0.280

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FY18 - Investment Request Summaries - IRSs - RSA Re-platform

OpEx		0.010		0.005		0.000		0.020		
Project Benefits - Type I only										
(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total	
Type I - CapEx									0.000	
Type I - OpEx									0.000	
Revenue Generation									0.000	

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we $need\ to\ do\ something\ and\ why\ now?\ Explain\ any\ Regulatory\ considerations\ and\ how\ this\ initiative\ aligns\ with\ the\ US\ Business\ Strategy.$

The impacts of this program on the Customer are based on a number of areas:

- Increase business and enterprise service performance and availability.
- Better way to support for Jurisdictional and business function initiatives.

Other benefits are:

- Use of smartphone app to replace physical hard token
- Minimize hard token distribution costs
- Use other alternatives immediately if token is lost or stolen

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.020	-24.4%	244
CapEx Annual Savings		5.1%	0	CapEx Cost	0.280	-11.2%	0
Revenue Generation (annual)		6.2%	0	RTB Efficiency	375.000 %	-22.5%	-2.025
Financial Control	does not apply	6.2%	0	Union/Labor Relations	does not apply	-9.8%	0
Soft Financial Benefits	does not apply	3.8%	0	Dependencies	Low	-10.6%	-0.106
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	Medium	-6.6%	-0.198
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Low	-14.9%	-0.149
Reliability	Medium	10.9%	0.327				
Customer & Community Responsiveness	Medium	5.3%	0.159				
Employee Satisfaction	Medium	4.6%	0.138				
Mitigates a Corporate Risk / Risk of not Doing	High= 40 or more	8.9%	0.801				
Jurisdictional Engagement	High	8.2%	1				
	Benefit Score:		2.16		Cos	st Score:	-2.83

Investment Risk and Complexity

Project Risk Score:	42	Risk Score Description: Risk Impact = 5 and Risk Likelihood = 7. If not deployed in the next 12 months, National Grid will need to purchased/renew approximately 12,500 RSA (\$200k/year) tokens that will ultimately be replaced with a smartphone app. Also we will need to retain our existing token disribution staff (\$150k/year), Tokens will start expiring in 2016. 5 years after initial Verizon contract initiation.	
Project Complexity Score::	16	Project Complexity Score Description:	

Overall Priority Score:

-0.671

Key Risks Description: Provide detail on project risks & mitigation strategy:

Tokens will start expiring in 2016, 5 years after initial Verizon contract initiation.

FY18 - Investment Request Summaries - IRSs - RSA Re-platform

IS Project Depe	ndencies if you don't see a p	eam.	Benefiting Operating Companies: Check all that apply						
IS Projects: 4270 - RSA	Re-platform				Select All	Companies 🗆	Clear All Com	panies	
1. Has a	dependency on IS Pr	oject;			Select All	Gas	Select All Elec	ctric	Select All
2. Has a	dependency on IS Pr	oject;			✓ National 0				
3. Has a	dependency on IS Pr	oject;				Grid USA Parent Energy Developr		ion	
4. Has a	dependency on IS Pr	oject;			✓ KeySpan S				
5. Has a	dependency on IS Pr	oject;			✓ KeySpan E ✓ KeySpan E	Energy Corp Energy Delivery	New York		
6. Has a	dependency on IS Pr	oject;			KeySpan E	Energy Delivery Generation LLC (Long Island		
Business Initiati	ive Dependencies				KeySpan C	Glenwood Energ Port Jefferson Er	y Center		
IS Projects: 4270 - RSA						Energy Trading S			
	dependency on Biz II	nitiative,			Niagara M	lohawk Power (Corp- Electric D	Distributio	n
1. Has a						1ohawk Power (
2. Has a	dependency on Biz II	nitiative,				lohawk Power (setts Electric Co		ssion	
	dependency on Biz II	nitiative,				isetts Electric Co		mission	
3. Has a	,				✓ Nantucket	t Electric Compa			
4. Has a	dependency on Biz II	nitiative,			■ Boston Ga				
					Colonial G	. ,			
Duning to Deletion	- alata -					sett Gas Compai sett Electric Con			
Project Relation						sett Electric Con		nission	
Minor Works	Project Relationship.					and Power Com			
Related Projects:					_	and Hydro - Trar	•		
						and Electric Trar			
					MG LNG L	P Regulated Ent	ity		
Enabling IS Cap	abilities check all that a	vlac							
	ent Management (ECM)		☐ Enterpr	rise Mobilit	у				
	Integration Services (CIS)		Reportir		•				
Hybrid Cloud			□ Networ	rks					
Next Gen Work	place								
Key Milestone I	Dates: Select the 1st, 15	th or last day of the mont	th						
Begin	Begin	Begin Development &	Begin						
Start-up	Requirements & Deign	Implementation	User Acceptance Testing	Go	Live	Project Com	pletion	Project	Closure
April, 2017				Septemb	er, 2018				
Business Resou	rce Estimates: # of Ful	Time Equivalents							
Start-up O	Requirements & Deign 0	Develop & Implement 0	Business Resources UAT	Go Live	Readiness 0		Post Go Live S	upport	
U					U				
Resourcing Strategy: This project will be reso	ourced using Solution Delive	ery Centre (SDC) partners	, Systems integrator and IS re	esources.					
Attached Supp	orting Documents								

FY18 - Investment Request Summaries - IRSs - RSA Re-platform

Recommendation Sign-off						
Role	Name	Title	Date			
Business Project Sponsor	John Gilbert	Global Head IS Service Delivery, Global IS				
Business Relationship Manager	Graham Pool	IS Business Relationship Manager				
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager				
			national grid			

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FY18 - Investment Request Summaries - IRSs - Azure Core Service Enablement (Cloud - Broker...



CapEx

ОрЕх

Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: Azure Core Service Enablement (Cloud - Broker / Hybrid Enablement)





									Motoc	
national gr	rid		Inve	estment Re	equest Sun	nmary - IS	US FI	SCAL YEAR	R 2018	
INV ID:	389	9 Project N	ame: Azure C	ore Service En	ablement (Clo	oud - Broker /	Hybrid Enable	ment)		
Program:	Servio	e Strategy Roadn	пар							
Sponsor:	John (Gilbert		-	Title: Global Hed	nd IS Service Deliv	very, Global IS			
Relationship Man	ager: Graho	am Pool		-	Title: IS Relation	ship Manager, G	lobal IS			
Prog Delivery Manager:	Tom C	Cunningham		-	Title: Head of Pr	ogramme Delive	ry, Global IS			
Paper Author:	Nicolo	a Pennington / Ste	ve Trezza		Title: Business C	onsultant - Corpo	orate IS / Service :	Strategy		
IS Roadmap Categ	gory: Comp	outing		В	usiness Area: Co l	rporate IS	Portfol	io: IS for IS		
☐ In-Flight Projec	t? Invest Classific	Mediu	um <i>Catego</i>	ory: Policy Driver	ı	Primary Policy D	river: Reliability		Region: Glo	bal
✓ Growth Playbo	ok Project?	Shaping Ou	r Future Project?		fficiency Project?					
We currently us cloud hosting av	se cloud hostii vailable by ad	text for the project ng services provide ding new contracts tracts with Microso	ed by CSC as part of with alternative	of the contract. T						
	g of Strategic	business challenge Cloud provider(s) ment costs				nent that will nee	ed integration, red	ducing the overa	ll network,	
Environment, e	tc.	reduce time to ma	,	. ,	•	uch as the Strate	gic Analytics Plati	form, Mobile Ap	plication Develop	oment
Any Wintel infra Security policie	astructure (sees. The future	is in scope and whervers, storage, MS may include AIX istructure and Softv	S-SQL databases anfrastructure, Or	and applications) acle databases ar			public cloud envi	ronment, while a	adhering to Digita	al Risk and
		<i>fy any core progra</i> of Verizons Secure			e include INVP nu	mbers if known				
It is assumed th	current netw	ork/internet as the ct will identify and c impact - as nothi	set up contracts,	•	•			ivironments are	required. Theref	ore there is
Indicative Pr	roject Cos	ts by Fiscal Ye	ear							
(\$M)	Prior Years	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
СарЕх		0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.25
DpEx		0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.75
mpact on RTB		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Indicative Pi	roject Cos	ts by Delivery	/ Phase							
(\$M)		Start-up		R & D		D & I		Closure		Total

0.200

0.685

0.050

0.050

0.010

0.250

0.750

0.005

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Project Benefits - Type I only FY 2018 FY 2019 FY 2020 FY 2021 FY 2022 FY 2023 FY 2024 FY 2025 Total Туре І - СарЕх 0.000 Type I - OpEx 0.000 Revenue 0.000

Key Business Benefits:

Generation

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. Improves productivity and reduces costs.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.750	-24.4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cost	0.250	-11.2%	0
Revenue Generation (annual)		6.2%	0	RTB Efficiency	0.000 %	-22.5%	
Financial Control	Low	6.2%	0.062	Union/Labor Relations	does not apply	-9.8%	0
Soft Financial Benefits	Medium	3.8%	0.114	Dependencies	Low	-10.6%	-0.106
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	Medium	-6.6%	-0.198
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Low	-14.9%	-0.149
Reliability	High	10.9%	0.981				
Customer & Community Responsiveness	Medium	5.3%	0.159				
Employee Satisfaction	Medium	4.6%	0.138				
Mitigates a Corporate Risk / Risk of not Doing	Medium=16 to 39	8.9%	0.267				
Jurisdictional Engagement	High	8.2%	1				
	Benef	it Score:	2.46		Cos	st Score:	-2.76
		_					

Overall Priority Score: -0.302

Investment Risk and Complexity							
Project Risk Score:	39	Risk Score Description: Risk Impact = 5 and Risk Likelihood = 5					
Project Complexity Score::	24	Project Complexity Score Description:					
Key Risks Description: Prov	vide detail on pro	oject risks & mitigation strategy:					

IS Project Dependencies if you don't see a project in the drop-down please contact the Planning & Performance team. Benefiting Operating Companies: Check all that apply

Projects:	3899 - Azure Core Service Enablement (Cloud - Broker / Hybrid Enablement)	Select All Companies	Clear All Companies	
		Select All Gas	Select All Electric	Select A

FY18 - Investment Request Summaries - IRSs - Azure Core Service Enablement (Cloud - Broker...

1.	Has a	dependency on IS	Project;		Gen		
2.	Has a	dependency on IS	Project;			National Grid USA Parent	
3	Has a	dependency on IS	Project:			KeySpan Energy Development Corpora	ation
	7703 0	acpenaency on 13	r roject,			KeySpan Services Inc.	ation
4.	Has a	dependency on IS	Project;			KeySpan Energy Corp	
5.	Has a	dependency on IS	Project;			KeySpan Energy Delivery New York	
6.	Has a	dependency on IS	Project;			KeySpan Energy Delivery Long Island KeySpan Generation LLC (PSA)	
		,	•			KeySpan Glenwood Energy Center	
						KeySpan Port Jefferson Energy Center	
L	Business Initiative De	ependencies				KeySpan Energy Trading Svc LLC	
IS	Projects: 3899 - Azure Core	e Service Enablen	nent (Cloud - Broker / Hybr	id Enablement)		Niagara Mohawk Power Corp- Electric	Distribution
		dependency on Bi	z Initiative,			Niagara Mohawk Power Corp - Gas	
1.	Has a					Niagara Mohawk Power Corp - Transm	nission
,	Has a	dependency on Bi	z Initiative,			Massachusetts Electric Company	
2.					•	Massachusetts Electric Company - Tra	nsmission
3.	Has a	dependency on Bi	z Initiative,		•	Nantucket Electric Company	
					•	Boston Gas Company	
4.	Has a	dependency on Bi	z Initiative,		•	Colonial Gas Company	
					•	Narragansett Gas Company	
					•	Narragansett Electric Company	
	Project Relationships	S		✓	Narragansett Electric Company - Trans	smission	
Project Relationship: Minor Works						New England Power Company - Transr	mission
						New England Hydro - Trans Corp	
Re	elated Projects:					New England Electric Trans Corp	
					4	NG LNG LP Regulated Entity	
	Enabling IS Capabilit	ies check all that	t apply				
	Enterprise Content Ma	nagement (ECM)		☐ Enterprise	Mobility		
	Comprehensive Integra	ation Services (CIS)	Reporting of	and Analytic	s	
	Hybrid Cloud			□ Networks			
	Next Gen Workplace						
	, , , , , , , , , , , , , , , , , , , ,						
	Key Milestone Dates	Select the 1st,	15th or last day of the mont	th			
			Begin				
	Begin	Begin	Development &	Begin			
	·	uirements & Deigr	n Implementation	User Acceptance Testing	Go Live	Project Completion	Project Closure
	April, 2017				March, 20	18	
	Business Resource Es	stimates: # of I	Full Time Equivalents				
			5 / 6/ /			l: 0 +0 +:	
	Start-up Requ 0	uirements & Deigr 0	n Develop & Implement 0	Business Resources UAT 0	Go Live Rea	diness Post Go Live 0	Support
_	esourcing Strategy:					0	
	,	using Solution Del	livery Centre (SDC) partners	, Systems integrator and IS reso	urces.		
	., .,		. ,	, , , , , , , , , , , , , , , , , , , ,			
L							
H							
L	Attached Supporting	g Documents					
	Recommendation Sig	gn-off					
R	ole	Name			Title		Date
Н	Business Project Sponsor	John Gilber	t			d IS Service Delivery, Global IS	

Niagara Mohawk Power Corporation d/b/a National Grid Case No. 17-E-0238 and 17-G-0239 Attachment 6 to DPS 275 IS-4 Page 173 of 250

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FY18 - Investment Request Summaries - IRSs - Azure Core Service Enablement (Cloud - Broker...

Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			national grid



Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: US Office 2010 upgrade





- iational	grid		Inve	estment Re	quest Sun	nmary - IS I	US I	FISCAL YEAF	R 2018	
NV ID:	42	Project N	ame: US Offic	ce 2010 upgrad	de					
rogram:	US I	5								
ponsor:	John	Gilbert		Т	Title: Global Hea	ıd of IS Service De	livery			
elationship Mo	anager: Bill I	cearns .		Т	Title: IS relations	hip manager - Co	rporate funct	ions		
rog Delivery Ianager:	Dave	e McCune		т	Title: Corporate	IS PDM				
Paper Author: Nicola Pennington / Steve Trezza Title: Business Consultant - Corporate IS / Service Strategy										
Roadmap Cat	tegory: IS A	ssurance		Ви	ısiness Area: Cor	porate IS	Port	folio: US IS		
In-Flight Proj	iect? Invest Classifi	cation:	ım Catego	ory: Policy Driven	ı	Primary Policy Dr	iver: Reliabilit	ty	Region: US	
☑ Growth Playbook Project? ☐ Shaping Our Future Project? ☐ Energy Efficiency Project?										
Project Description: The context for the project with background information The current productivity tool is Office 2010 which has entered extended support from Microsoft and is now "n-2" versions old. Upgrade of the software will bring improved features, improved security, and support for real time collaboration of documents as well as better cloud integration.										
Project Rationale: Highlight business challenge, capability or process the project addresses To help support foundational programs that will enable or support the Utility of the Future. Supports National Grid in fulfilling its reporting and data retention regulatory obligations.										
		g reporting			Garana,					
Project Scope: Explain what is in scope and what is not in scope for the project Any users of the Microsoft Office suite of tools (i.e. Excel, Word, Powerpoint, etc.)										
		tify any core progra			: include INVP nu	mbers if known				
	Assumptions:	the funding for the	Office 365 subsc	ription upgrade a	nd deployment					
. , .,				,	, ,					
	•	sts by Fiscal Ye								
		FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
(\$M)	Prior Years		0.000	0.000	0.000	0.000	0.00		0.000	0.80
(\$M) pEx	Prior Years	0.800	0.000				0.00	0.000	0.000	
(\$M) pEx	Prior Years	0.800	0.000	0.000	0.000	0.000	0.00	0.000	0.000	0.00
(\$M) pEx Ex	Prior Years			0.000	0.000	0.000	0.00		0.000	
(\$M) pEx DEx pact on RTB		0.000	0.000							
(\$M) IPEX DEX IPact on RTB		0.000	0.000							
(\$M) ppEx ppact on RTB Indicative (\$M)		0.000 1.600 sts by Delivery	0.000	0.000 R & D		0.000 D & I	0.000	0.000		
(\$M) apEx apEx mpact on RTB		0.000 1.600 sts by Delivery	0.000	0.000		0.000	0.000	0 0.000		1.60

FY18 - Investment Request Summaries - IRSs - US Office 2010 upgrade

Project Bene	efits - Type I	only									
(\$M)	FY 2018	FY 201	19 FY 2020	FY	2021	FY 2022	FY 2023	FY 2024	FY 202	5	Total
Туре I - СарЕх											0.000
Туре І - ОрЕх											0.000
Revenue Generation											0.000
need to do someth The impacts of this Improves re Support Jui Enables a b Employees will be	both financial and ing and why noves program on the eliability and pro- risdictional and be better Customer I able to use an ap	v? Explain as Customer as ductivity pusiness fun- Experience	cial, and when those be ny Regulatory considera are based on a number of ction initiatives with more functionality in ustomers with more op	ations and of areas: n a more ir	how this	initiative aligns wit.	h the US Business . tion and business	Strategy.			
Investment I	Prioritizatio	n									
Benefits			Impact	Weight	Score	Cost			Impact	Weight	Score
OpEx Annual Savin	ıgs			10.3%	0	OpEx Cost			0.000	-24.4%	0
CapEx Annual Savi	ngs			5.1%	0	CapEx Cost			0.800	-11.2%	0
Revenue Generation				6.2%	0	RTB Efficiency			1,400.000	% -22.5%	-2.025
Financial Control			Low	6.2%	0.062	Union/Labor Re	lations		Low	-9.8%	0
Soft Financial Bene	efits		Low	3.8%	0.038	Dependencies			Medium	-10.6%	-0.318
Regulatory Impact			does not apply	11.2%	0	Elapse Time Du	ration		Medium	-6.6%	-0.198
Process & Persona	l Safety		Low	19.4%	0.194	Change Manag	ement Effort		High	-14.9%	-1.341
Reliability			Medium	10.9%	0.327						
Customer & Comm	nunity Responsive	eness	Medium	5.3%	0.159						
Employee Satisfact	tion		Medium	4.6%	0.138						
Mitigates a Corpor	ate Risk / Risk of	f not Doing	Medium=16 to 39	8.9%	0.267						
Jurisdictional Enga	gement		High	8.2%	1						
			Bene	fit Score:	1.92					Cost Score:	-4.32
					Overall Pi	riority Score: -2	2.393				
	Diale and Car										
Investment I Project Risk Score:	KISK and Cor		k Score Description:								
Project Nisk Score.	30	D'-	k Impact = 4 and Risk Lil	kelihood =	6						
Project Complexity Score::	14		ject Complexity Score D	escription	:						
			risks & mitigation strate res, without this investn		r underlyi	ng technology infra	structure, we canr	not deliver these n	ew strategic	programs.	
IS Project De	ependencies	if you don't se	e a project in the drop-down p	lease contact	the Planning	g & Performance team.	Benefiti	ng Operating	Compani	es: Check all th	nat apply
IS Projects: 4265 -	US Office 2010	upgrade						II Companies			
1. Has a	depe	ndency on IS	Project;				Gen	II Gas	Select All Ele	ctric 🗆	Select All

FY18 - Investment Request Summaries - IRSs - US Office 2010 upgrade

2. Has a	dependency on IS Proje	ect;		•	National Grid USA Parent	
3. Has a	dependency on IS Proje	ect;			KeySpan Energy Development Corpor	ation
				•	KeySpan Services Inc.	
4. Has a	dependency on IS Proje	ect;			KeySpan Energy Corp	
5. Has a	dependency on IS Proje	ect;			KeySpan Energy Delivery New York	
6. Has a	dependency on IS Proje	ect;		V	KeySpan Energy Delivery Long Island KeySpan Generation LLC (PSA)	
				•	KeySpan Glenwood Energy Center	
Business Initiative De	ependencies				KeySpan Port Jefferson Energy Center	
IS Projects: 4265 - US Office 2	2010 upgrade				KeySpan Energy Trading Svc LLC Niagara Mohawk Power Corp- Electric	. Diatribtia.a
d 11000	dependency on Biz Init	iative,			Niagara Mohawk Power Corp - Electric	Distribution
1. Has a					Niagara Mohawk Power Corp - Transn	nission
2. Has a	dependency on Biz Init	iative,			Massachusetts Electric Company	
2 //22 2	dependency on Biz Init	iative,			Massachusetts Electric Company - Tra Nantucket Electric Company	nsmission
3. Has a	dan and dan average Dia to the	dayah		•	Boston Gas Company	
4. Has a	dependency on Biz Init	iativė,			Colonial Gas Company	
					Narragansett Gas Company Narragansett Electric Company	
Project Relationships					Narragansett Electric Company - Trans	smission
Minor Works	Project Relationship:			•	New England Power Company - Trans	
Related Projects:					New England Hydro - Trans Corp	
helatea Projects.					New England Electric Trans Corp NG LNG LP Regulated Entity	
					THE ENGLISHED ENGLISHED	
Enabling IS Capabiliti	es check all that app	ly				
Enterprise Content Mar			□ Enterprise			
Comprehensive Integra	tion Services (CIS)		Reporting a	and Analyti	cs	
Hybrid Cloud			☐ Networks			
Next Gen Workplace						
Key Milestone Dates:	Select the 1st, 15th	or last day of the mont	h			
		Begin				
Begin	Begin	Development &	Begin	Cali	Duningt Commistion	Duningt Classes
	iirements & Deign	Implementation	User Acceptance Testing	Go Liv	,	Project Closure
August, 2017				March, 20	18 March, 2018	
Business Resource Es	timates: # of Full T	ima Faujvalants				
		·				
Start-up Requ	iirements & Deign 0	Develop & Implement 0	Business Resources UAT 0	Go Live Red 0	ndiness Post Go Live	Support
Resourcing Strategy: This project will be resourced u	using Solution Delivery	/ Centre (SDC) partners.	Systems integrator and IS resou	urces.		
	,		,			
Attached Supporting	Documents					
Recommendation Sig	n-off					
Role	Name			Title		Date
Business Project Sponsor	John Gilbert				ad of IS Service Delivery	- 1-
business i roject sponsor	John Gilbert			Giobai He	ad of 13 service Delivery	

Niagara Mohawk Power Corporation d/b/a National Grid Case No. 17-E-0238 and 17-G-0239 Attachment 6 to DPS 275 IS-4 Page 177 of 250

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FY18 - Investment Request Summaries - IRSs - US Office 2010 upgrade

	·	. •	
Business Relationship Manager	Bill Kearns	IS Business Relationship Manager	
IS Program Delivery Manager	Dave McCune	IS Program Delivery Manager	
			national grid



Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: US Citrix Rationalisation





national grid		Investment Reque	st Summary - IS U	IS FISCAL YEA	AR 2018				
INV ID:	4279 Project Name: U.	S Citrix Rationalisation							
Program:	US IS								
Sponsor:	John Gilbert	Title: G	Global Head of IS Service Deli	very					
Relationship Manager:	Bill Kearns	Title: R	elationship Manager - Corpo	orate IS					
Prog Delivery Manager:	Dave McCune	Title: C	orporate IS PDM						
Paper Author:	Nicola Pennington / Steve Trezza	Title: B	usiness Consultant - Corpord	ate IS / Service Strategy					
IS Roadmap Category:	IS Assurance	Business	Area: Corporate IS	Portfolio: US IS					
	nvest Low lassification:	Category: Policy Driven	Primary Policy Driv	ver: Reliability	Region: US				
✓ Growth Playbook Proj	eject? Shaping Our Future P	Project? Energy Efficiency	Project?						
	the context for the project with bacecommendations for upgrade/ratio	-	ture						
Citrix is a product that method of remote acc environment is runnir introduces instability software. Our most cu	Project Rationale: Highlight business challenge, capability or process the project addresses Citrix is a product that National Grid uses to virtualize a number of key business applications such as ArcGis, Casade, Small World GIS, and Maximo. Citrix is also is a key method of remote access for National Grid users, Eco system partners and other outside contractors via our Secure gateway solutions. A good portion of our current Citrix environment is running on unsupported Operating systems (Windows 2000 and 2003) and unsupported Citrix versions (Metaframe XP 1.0 and Presentation 4.0). This not only introduces instability but exposes National Grid to vulnerabilities. The current unstable environment can cause major incidents and failures due to unsupported hardware and software. Our most current version is Xenapp 6.0 running on Windows 2008 r2 was out of support as of August 2016. There is a proposal to resolve these issues through rationalisation of current estate (14 farms) and upgrade of remaining servers. There is a high level proposal from CSC								
	piece of work is required to review	this proposal and make recom	mendations for way forward						
	n what is in scope and what is not in a single is to review the US citrix estate and the use of the		to rationalisae and upgrade	e all of the estate to be within	n support.				
	:: Identify any core program or proj encies required for this project to s		e INVP numbers if known						
An NG PM will be req progress and c to coordinate	y is a piece of work by CSC costed a juired to manage	commendations							

Indicative Project Costs by Fiscal Year

(\$M)	Prior Years	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
СарЕх		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ОрЕх		0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.080
Impact on RTB		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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FY18 - Investment Request Summaries - IRSs - US Citrix Rationalisation

Indicative F	Indicative Project Costs by Delivery Phase									
(\$M)	Star	rt-up	R	& D	D	& 1	Clo	sure	Total	
СарЕх									0.000	
ОрЕх		0.005		0.070				0.005	0.080	
Project Ber	efits - Type I	only FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total	
Type I - CapEx									0.000	
Type I - OpEx									0.000	
Revenue Generation									0.000	

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. This project will provide a recommended way forward for the US Citrix environment.

It is expected that the benefits of rationalising and upgrading Citrix will be as follows

- · Increase business and enterprise service performance and availability
- Better way to support for Jurisdictional and business function initiatives.
- Better remote support
- Improved user experience

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.080	-24.4%	244
CapEx Annual Savings		5.1%	0	CapEx Cost	0.000	-11.2%	0
Revenue Generation (annual)		6.2%	0	RTB Efficiency	0.000	% -22.5%	0
Financial Control	Low	6.2%	0.062	Union/Labor Relations	Low	-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Medium	-10.6%	-0.318
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	Medium	-6.6%	-0.198
Process & Personal Safety	Low	19.4%	0.194	Change Management Effort	Medium	-14.9%	-0.447
Reliability	Medium	10.9%	0.327				
Customer & Community Responsiveness	Low	5.3%	0.053				
Employee Satisfaction	Low	4.6%	0.046				
Mitigates a Corporate Risk / Risk of not Doing	Medium=16 to 39	8.9%	0.267				
Jurisdictional Engagement	High	8.2%	1				
	Benej	fit Score:	1.73			Cost Score:	-1.31

Overall Priority Score:

Project Risk Score:	37	Risk Score Description: Risk Impact = 4 and Risk Likelihood = 7
Project Complexity Score::	14	Project Complexity Score Description:

Key Risks Description: Provide detail on project risks & mitigation strategy: This project will be resourced using IS resources and sourcing partners.

	Citrix Rationalisation				Select All Companies Clear All Companies
Has a	dependency on IS Pro	oject;			Select All Gas Select All Electric Select
Has a	dependency on IS Pr				Gen
Has a	dependency on IS Pr				National Grid USA Parent
rius u	dependency on 13 FN	nject,			KeySpan Energy Development CorporationKeySpan Services Inc.
Has a	dependency on IS Pr	oject;			KeySpan Energy Corp
Has a	dependency on IS Pr	oject;			KeySpan Energy Delivery New YorkKeySpan Energy Delivery Long Island
Has a	dependency on IS Pr	oject;			KeySpan Generation LLC (PSA)
					KeySpan Glenwood Energy Center
Business Initiat	tive Dependencies				KeySpan Port Jefferson Energy CenterKeySpan Energy Trading Svc LLC
Projects: 4279 - US	S Citrix Rationalisation				✓ Niagara Mohawk Power Corp- Electric Distribution
Has a	dependency on Biz Ir	iitiative,			Niagara Mohawk Power Corp - Gas
	dependency on Biz Ir	nitiative,			Niagara Mohawk Power Corp - TransmissionMassachusetts Electric Company
. Has a	, ,	,			Massachusetts Electric Company Transmission
. Has a	dependency on Biz Ir	iitiative,			Nantucket Electric Company
	dependency on Biz Ir	nitiative,			☑ Boston Gas Company☑ Colonial Gas Company
Has a					Colonial Gas Company Narragansett Gas Company
					✓ Narragansett Electric Company
Project Relatio					Narragansett Electric Company - Transmission
Minor Works	Project Relationship:				New England Power Company - TransmissionNew England Hydro - Trans Corp
elated Projects:					New England Electric Trans Corp New England Electric Trans Corp
					✓ NG LNG LP Regulated Entity
	pabilities check all that ap	oply	☐ Enterpri	ica Mahili	
	ve Integration Services (CIS)		Reporting		
	e integration services (els)		Network	-	ny acs
•					
Hybrid Cloud Next Gen Work	kplace		— Network		
Hybrid Cloud Next Gen Word	Applace Dates: Select the 1st, 15	th or last day of the mor			
Hybrid Cloud Next Gen Word	Dates: Select the 1st, 15	Begin	nth		
☐ Hybrid Cloud☐ Next Gen Word				Gü	o Live Project Completion Project Closure
Hybrid Cloud Next Gen Word Key Milestone Begin	Dates: Select the 1st, 15	Begin Development &	nth <i>Begin</i>		o Live Project Completion Project Closure ner, 2017 October, 2017
Hybrid Cloud Next Gen Word Key Milestone Begin Start-up June, 2017	Dates: Select the 1st, 15	Begin Development & Implementation	nth <i>Begin</i>		, ,
Hybrid Cloud Next Gen Word Key Milestone Begin Start-up June, 2017	Dates: Select the 1st, 15 Begin Requirements & Deign	Begin Development & Implementation	Begin User Acceptance Testing	Septemb	, ,
Hybrid Cloud Next Gen Word Next Gen Word Key Milestone Begin Start-up June, 2017 Business Resou	Dates: Select the 1st, 15: Begin Requirements & Deign urce Estimates: # of Ful	Begin Development & Implementation	Begin User Acceptance Testing	Septemb	per, 2017 October, 2017
Hybrid Cloud Next Gen Word Key Milestone Begin Start-up June, 2017 Business Resou Start-up 0 esourcing Strategy:	Dates: Select the 1st, 15: Begin Requirements & Deign urce Estimates: # of Ful Requirements & Deign	Begin Development & Implementation I Time Equivalents Develop & Implement	Begin User Acceptance Testing Business Resources UAT	Septemb	ner, 2017 October, 2017 Readiness Post Go Live Support
Hybrid Cloud Next Gen Word Key Milestone Begin Start-up June, 2017 Business Resou Start-up 0	Begin Requirements & Deign urce Estimates: # of Ful Requirements & Deign 0	Begin Development & Implementation I Time Equivalents Develop & Implement	Begin User Acceptance Testing Business Resources UAT	Septemb	ner, 2017 October, 2017 Readiness Post Go Live Support
Hybrid Cloud Next Gen Word Key Milestone Begin Start-up June, 2017 Business Resou Start-up 0	Begin Requirements & Deign urce Estimates: # of Ful Requirements & Deign 0	Begin Development & Implementation I Time Equivalents Develop & Implement	Begin User Acceptance Testing Business Resources UAT	Septemb	ner, 2017 October, 2017 Readiness Post Go Live Support

6/14/2017 FY18 - Investment Request Summaries - IRSs - US Citrix Rationalisation

Recommendation Sign-off								
Role	Name	Title	Date					
Business Project Sponsor	John Gilbert	Global Head of IS Service Delivery						
Business Relationship Manager	Bill Kearns	IS Business Relationship Manager						
IS Program Delivery Manager	Dave McCune	IS Program Delivery Manager						
national grid								

FY18 - Investment Request Summaries - IRSs - Business Innovation Projects 1

6/14/2017



Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: Business Innovation Projects 1





national grid		Investment Requ	est Summary - IS US	FISCAL YEAR 2	2018				
INV ID: 4707	7 Project Name:	Business Innovation Project	-						
Program:									
Sponsor: John G.	ilbert	Title:	Global Head IS Service Delivery, G	Global IS					
Relationship Manager: Grahar	m Pool	Title:	IS Relationship Manager, Global I.	S					
Prog Delivery Tom Cu Manager:	unningham	Title:	Head of Programme Delivery, Glo	bal IS					
Paper Author: Nicola	Pennington / Steve Trezz	Title:	Business ConsItant - Corporate IS						
IS Roadmap Category: IS Assu	urance	Busines	s Area: Corporate IS	Portfolio: Global F, SS & C	С				
☐ In-Flight Project? Invest Classificat	Medium	Category: Policy Driven	Primary Policy Driver:	Reliability	Region: US				
☐ Growth Playbook Project?	Shaping Our Future	Project? Energy Efficien	cy Project?						
The Business Innovation projemployees and customers wh which have customer, brand a Big Data Analytics – Se Data Cleansing for rep Data Visualization and Process and workflow CRM and SaaS capabil CIS system upgrade Pil Rate engine Upgrades Call Center capability Consumer document Findering Systems u Network and connecti Mobile device capability Increased collaboratio Video collaboration for	Project Description: The context for the project with background information The Business Innovation project provides a funding base and governance structure that allows the Information Services (IS) organization to improve the IS experience for our employees and customers who will experience improved reliability, use ability, speed and efficiency across all functions. The program will also reduce the risk of system failure which have customer, brand and cost implications. The program includes the following: Big Data Analytics – Setup Data Lake and company wide analytics capability Data Cleansing for reporting and Data Standards compliance – Enable BMS Standards Data Visualization and Online interactive dashboards for quick decision making Process and workflow automation with robotics CRM and SaaS capability for future Customer experience program CIS system upgrade Pilots Rate engine Upgrades Call Center capability enhancements for chat, automated agents, multichannel problem solving capability Consumer document management and process simplification Engineering Systems upgrades								
Project Scope: Explain what is	s in scope and what is no	t in scope for the project							
	ives are dependent on th	roject dependencies, please inclu ie work described within this do	ide INVP numbers if known cument, in order to progress and s	succeed including:					
Basic Project Assumptions:									

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FY18 - Investment Request Summaries - IRSs - Business Innovation Projects 1

(\$M)	Prior Years	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
СарЕх		3.369	3.973	0.000	0.000	0.000	0.000	0.000	0.000	7.342
ОрЕх		0.100	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.200
Impact on RTB		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Indicative Project Costs by Delivery Phase

(\$M)	Start-up	R & D	D & I	Closure	Total
СарЕх		1.000	6.342		7.342
OpEx	0.010	0.040	0.140	0.010	0.200

Project Benefits - Type I only

(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Type I - CapEx									0.000
Type I - OpEx									0.000
Revenue Generation									0.000

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. The impacts of this program on the Customer are based on a number of areas:

- Increase business and enterprise service performance and availability
- Support Jurisdictional and business function initiatives
- Enable Customer Experience Transformation

Increased bandwidth and resilience - Delivery of software defined Wide Area Network technnlogy will allow IS to deliver high bandwidth business class service through low cost commmodity broadband internet servvices. In combination witth cloud based security tools, this technology will support high speed Internet web browsing and use of high bandwidth cloud services even from the smallest locations. The tangible benefits that the user will experiencee is faster PC start up times, fast file transfers, more responsive applications, and access to bandwidth intensive Internet and cloud based services like, YouTube, WebEx, andd Office 365.

Access anywhere from any device - Delivery of pervasive Wireless Networks with the capacity to support a multitude of devices will be key to supporting a flexible and mobile field worker or customer agent. Everyday more wireless only devices are coming to market that can allow National Grid to deliver serviices in a more effective and efficient manner (e.g. iPads, specialized tablets, sensors, equipment controllers). The implementation of secure wireleess networks that support this environment will be critical to improved efficienciees the businness will be challenged to achieve.

Unified Communications - As we move to a more mobile world with people working away from the traditional office, it will be critical to have communications systems in place that ensure clear, consistent, and more personal communications between all parties. This will be achieved through use of a consistent set of easy to use communication tools that provide voice, video, and text communications between parties both within and outside the company. In addition, these tools will take advantage of the capabilities of the new device being used to relay real-time information in the form of pictures, videos, and telemeetry to staff and systems that can proocess the information and provide informed feedbaack to the remote staff.

Virtual Desktop - If we don't augment the current service the Businesss cannot grow, as planned, new development needs due to physical constraints of the existing offering. In addition, the current architecture is not a sustainable service, presents a single point of failure and high risk from internal attacks. The business should expect longer development times when existing resources begin to fail or current development tools need refresh.

Cloud - The business may lose commpetitive advantages as they will be limited to existing infrastructure options which lack current-state capabilities, are costly and take a long time to provision relative to hyper scale offerings. While not solely a financial advantage at first, there will be economies at scale. Developer productivity will be constrained in the current environment; agile project approaches will simply not work. IS will be silently encouraging shadow IT start ups via lack of an internal offering and current speed to deliver,

Applications - Employees and customers will be able to use applications with more functionality in a more intuitive manner through multiple devices. The Jurisdictions and business funnctions will be able utilize more reliable and resilient applications and leverage their full capability Application upgrades will enable CET to provide customers with more options to interact with the Company.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weig	nht Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.200	-24.4	1%732
CapEx Annual Savings		5.1%	0	CapEx Cost	7.342	-11.2	2% -1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	0.000	% -22.5	5% 0
Financial Control	does not apply	6.2%	0	Union/Labor Relations	Low	-9.8	% 0
Soft Financial Benefits	does not apply	3.8%	0	Dependencies	Low	-10.6	5% -0.106
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	High	-6.6	% -0.594
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Low	-14.9	9% -0.149
Reliability	Medium	10.9%	0.327				

FY18 - Investment Request Summaries - IRSs - Business Innovation Projects 1

Customer & Community Re	esponsiveness	Low		5.3%	0.053						
Employee Satisfaction	mployee Satisfaction Low 4.6% 0.046										
Mitigates a Corporate Risk	k / Risk of not Do	ing High= 40	or more	8.9%	0.801						
Jurisdictional Engagement	:	Hi	gh	8.2%	1						
			Benefi	t Score:	1.97		Cost Score: -2.69				
					Overall Pri	ority Score: -0.72	22				
Investment Risk a	nd Complexi	ity									
Project Risk Score:	41	Risk Score Descr Risk Impact = 5 a		elihood =	6						
Project Complexity Score::	16	Project Complex	ity Score De	scription	:						
Key Risks Description: Prov	vide detail on pro	ject risks & mitigo	ation strateg	ду:							
IS Project Depend	encies if you do	n't see a project in the	drop-down ple:	ase contact	the Planning a	& Performance team.	Benefiting Operating Companies: Check all that apply				
IS Projects: 4707 - Busine	ss Innovation Pro	ojects 1					Select All Companies Clear All Companies				
1. Has a	dependency of	on IS Project;					Select All Gas Select All Electric Select All Gen				
2. Has a	dependency o	on IS Project;					✓ National Grid USA Parent				
3. Has a	dependency of	on IS Project;					KeySpan Energy Development Corporation				
4. Has a	dependency (on IS Project;					KeySpan Services Inc. KeySpan Energy Corp KeySpan Energy Delivery New York				
5. Has a	dependency (on is Project;					✓ KeySpan Energy Delivery Long Island				
6. Has a	dependency (on IS Project;					KeySpan Generation LLC (PSA) KeySpan Glenwood Energy Center				
Pusiness Initiative	Donondono	rios					✓ KeySpan Port Jefferson Energy Center				
Business Initiative							KeySpan Energy Trading Svc LLC Niagara Mohawk Power Corn- Flectric Distribution				
IS Projects: 4707 - Busine		on Biz Initiative,					 ✓ Niagara Mohawk Power Corp- Electric Distribution ✓ Niagara Mohawk Power Corp - Gas 				
1. Has a	uepenueney (, si biz imeracive,					✓ Niagara Mohawk Power Corp - Transmission				
2. Has a	dependency (on Biz Initiative,					Massachusetts Electric Company Massachusetts Electric Company - Transmission				
3. Has a	dependency (on Biz Initiative,					Mantucket Electric Company Nantucket Electric Company Boston Gas Company				
4. Has a	dependency (on Biz Initiative,					✓ Colonial Gas Company ✓ Narragansett Gas Company ✓ Narragansett Electric Company				
Project Relationsh	nips						Narragansett Electric Company - Transmission				
Minor Works	Project Relati	ionship:					New England Power Company - Transmission				
Related Projects:							 ✓ New England Hydro - Trans Corp ✓ New England Electric Trans Corp ✓ NG LNG LP Regulated Entity 				
Enabling IS Capab	ilities check all	I that apply									
☐ Enterprise Content	Management (E	CM)				Enterprise Mobil	ity				
Comprehensive Int	egration Services	s (CIS)				Reporting and An	palytics				
Hybrid Cloud					Networks						

FY18 - Investment Request Summaries - IRSs - Business Innovation Projects 1

Next Gen Workplace								
Key Milestone Dates:	Select the 1st, 15t	th or last day of the mont	h					
Begin	Begin ements & Deign	Begin Development & Implementation	Begin User Acceptance Testing	Go Live	Project Completion	Project Closure		
April, 2017					March, 2019			
Business Resource Esti	mates: # of Full	Time Equivalents						
·	ements & Deign	Develop & Implement	Business Resources UAT	Go Live Readiness	Post Go Live	Support		
0	0	0	0	0	0			
Attached Supporting	Documents							
Recommendation Sign-off								
Role	Name			Title		Date		
Business Project Sponsor	John Gilbert			Global Head IS Service	e Delivery, Global IS			
Business Relationship Manager	Graham Pool			IS Business Relationsh	ip Manager			
IS Program Delivery Manager	Tom Cunningh	am		IS Program Delivery N	1anager			
						national grid		



(\$M)

СарЕх

ОрЕх

Start-up

0.030

Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: Data





2
Tags &

national gr	ıd		Inves	stment Red	quest Sum	mary - IS l	JS FIS	SCAL YEAR	2018	
NV ID:	471	Project N	lame: Data Seco	urity						
Program:	Servic	e Strategy Roadn	пар							
Sponsor:	John G	ilbert		Tit	tle: Global Head	l IS Service Delive	ery, Global IS			
Relationship Man	ager: Graha	m Pool		Tir	tle: IS Relations	hip Manager, Glo	obal IS			
Prog Delivery Manager:	Tom C	unningham		Tir	tle: Head of Pro	gramme Delivery	ı, Global IS			
Paper Author:	Nicola	Pennington / Ste	ve Trezza	Tir	tle: Business Co.	nsltant - Corpora	te IS			
S Roadmap Categ	gory: IS Ass	urance		Bus	siness Area: Corp	oorate IS	Portfoli	o: IS for IS		
In-Flight Projec	t? Invest Classifica	Mediu	um <i>Categor</i>	y: Policy Driven	F	Primary Policy Dri	iver: Reliability		Region: US	
Growth Playbo	ok Project?	Shaping Ou	r Future Project?	Energy Effi	iciency Project?					
This Data Secur	rity project is b	ased around a m	t with background in ove to protect data vered using Micros	a through informa						t also our
This projects wi	ill provide nev	services and fut	e, capability or produre projects to buil an investment in c	ld a foundation tl	hat will enable o		•			ces, such
Project Scope: E As we move to Here are the re Data Sect Advanced Cloud Ap Windows	any device wo lated projects urity / Informa d Threat Analy op Security (SP	orking in the cloud : ution Rights Mana tics (SPE) E) reat Protection (S			ints and applicat	ions to data and	the need to prof	ect the data reg	ardless of where it	resides.
Project Scope: As we move to Here are the re Data Seci Advance Cloud Ap Windows Advance	any device wo elated projects urity / Informa d Threat Analy op Security (SP s Advanced Th Compliance S	orking in the cloud to tion Rights Mana tics (SPE) E) reat Protection (S ervices (SPE)	d our focus will cha	inge from end po			the need to prot	ect the data rega	ardless of where it	resides.
Project Scope: E As we move to Here are the re Data Sect Advanced Cloud Ap Windows Advance	any device wo elated projects urity / Informa d Threat Analy op Security (SP s Advanced Th Compliance S	orking in the cloud: tition Rights Mana titics (SPE) E) reat Protection (S ervices (SPE)	d our focus will cha agement (SPE) SPE)	inge from end po			the need to prot	ect the data rega	ardless of where it	resides.
Project Scope: E As we move to Here are the re Data Sect Advanced Cloud Ap Windows Advance	any device wo elated projects urity / Informa d Threat Analy op Security (SP s Advanced Th Compliance S	orking in the cloud: tition Rights Mana titics (SPE) E) reat Protection (S ervices (SPE)	d our focus will cha agement (SPE) SPE) and or project depen	inge from end po			the need to prot	ect the data rega	ardless of where it	resides.
Project Scope: Le As we move to Here are the re Data Sect Advanced Cloud Ap Windows Advance	any device wo elated projects urity / Informa d Threat Analy op Security (SP s Advanced Th Compliance S	orking in the cloud: tition Rights Mana titics (SPE) E) reat Protection (S ervices (SPE)	d our focus will cha agement (SPE) SPE) and or project depen	inge from end po			the need to prot	ect the data rega	ardless of where it	resides.
Project Scope: Le As we move to Here are the re Data Sect Advanced Cloud Ap Windows Advance	any device wo elated projects urity / Informa d Threat Analy pp Security (SP s Advanced Th Compliance S dencies: Identij lencies will be	orking in the cloud: tition Rights Mana titics (SPE) E) reat Protection (S ervices (SPE)	d our focus will cha agement (SPE) SPE) and or project depen	inge from end po			the need to prot	ect the data rega	ardless of where it	resides.
Project Scope: B As we move to Here are the re Data Sect Advance Cloud Ap Windows Advance Project Depend Project depend	any device wo llated projects urity / Informa d Threat Analy, up Security (SP s Advanced Th Compliance S llencies: Identij lencies will be	orking in the cloud: ition Rights Mana- itios (SPE) E) reat Protection (Services (SPE) iy any core progra developed as the	d our focus will cha agement (SPE) SPE) and or project depen	inge from end po ndencies, please i s start up.	include INVP nun	nbers if known			ardless of where it	resides.
Project Scope: B As we move to Here are the re Data Sect Cloud Ap Windows Advance Project Depend Project depend	any device wo llated projects urity / Informa d Threat Analy, up Security (SP s Advanced Th Compliance S llencies: Identij lencies will be	orking in the cloud: ition Rights Mana- itios (SPE) E) reat Protection (Services (SPE) iy any core progra developed as the	d our focus will changement (SPE) SPE) am or project dependent individual project:	inge from end po ndencies, please i s start up.	include INVP nun	nbers if known			ardless of where it	resides.
Project Scope: B As we move to Here are the re Data Sect Advanced Cloud Ap Windows Advance Project Depend Project depend	any device wo llated projects urity / Informa d Threat Analy, up Security (SP s Advanced Th Compliance S llencies: Identij lencies will be	orking in the cloud: ition Rights Mana- itios (SPE) E) reat Protection (Services (SPE) iy any core progra developed as the	d our focus will changement (SPE) SPE) am or project dependent individual project:	inge from end po ndencies, please i s start up.	include INVP nun	nbers if known			ardless of where it	resides.
Project Scope: B As we move to Here are the re Data Seci Cloud Ap Windows Advance Project Depend Project depend	any device wo llated projects urity / Informa d Threat Analy, up Security (SP s Advanced Th Compliance S llencies: Identij lencies will be	orking in the cloud: ition Rights Mana- itios (SPE) E) reat Protection (Services (SPE) iy any core progra developed as the	d our focus will changement (SPE) SPE) am or project dependent individual project:	inge from end po ndencies, please i s start up.	include INVP nun	nbers if known			ardless of where it	resides.
Project Scope: E As we move to Here are the re Data Sect Advance Cloud Ap Windows Advance Project Depend Project depend Basic Project As This multi-year	any device wo lated projects urity / Informated Threat Analy op Security (SP is Advanced The Compliance Statements will be devices: Identify lencies will be assumptions: investment and statements and statements are supported by the security of the securi	orking in the cloud: ition Rights Mana- itios (SPE) E) reat Protection (Services (SPE) iy any core progra developed as the	d our focus will changement (SPE) SPE) am or project depend in individual projects and capability change and capability change in individual projects	inge from end po ndencies, please i s start up.	include INVP nun	nbers if known			ardless of where it	resides.
Project Scope: B As we move to Here are the re Data Seci Advanced Cloud Ap Windows Advance Project Depend Project depend Basic Project As This multi-year	any device wo lated projects urity / Informated Threat Analy op Security (SP is Advanced The Compliance Statements will be devices: Identify lencies will be assumptions: investment and statements and statements are supported by the security of the securi	orking in the cloud: ition Rights Manaritics (SPE) E) reat Protection (Services (SPE) iy any core progradeveloped as the	d our focus will changement (SPE) SPE) am or project depend in individual projects and capability change and capability change in individual projects	inge from end po ndencies, please i s start up.	include INVP nun	nbers if known			ardless of where it	resides.
Project Scope: B As we move to Here are the re Data Seci Advance Cloud Ap Windows Advance Project Depend Project depend Basic Project As This multi-year	any device wo lated projects urity / Informa d Threat Analy, up Security (SP is Advanced Th Compliance Statements: Identify Ident	orking in the cloud: itition Rights Manatics (SPE) E) reat Protection (Services (SPE) iy any core progradeveloped as the	d our focus will changement (SPE) SPE) am or project depend individual project: a and capability change and capability change.	ndencies, please i s start up.	include INVP nun	nbers if known Grid's strategic bu	ısiness objective	S.		Total
Project Scope: As we move to Here are the re Data Secient Advance Cloud Ap Windows Advance Project Depend Project depend Basic Project As This multi-year	any device wo lated projects urity / Informa d Threat Analy, up Security (SP is Advanced Th Compliance Statements: Identify Ident	orking in the cloud: ition Rights Manaritics (SPE) E) reat Protection (Services (SPE) iy any core progra developed as the	d our focus will changement (SPE) SPE) Immor project dependent individual project individual project in and capability change in and capability change in and capability change in an and capability change in an and capability change in an	ndencies, please is start up.	include INVP nun abling National G	nbers if known Grid's strategic bu	isiness objective	s. FY 2024	FY 2025	

D&1

4.150

Closure

R & D

0.575

Total

4.725

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(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Type I - CapEx									0.000
Type I - OpEx									0.000
Revenue Generation									0.000

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy.

The impacts of this program on the Customer are based on a number of areas:

- Improves reliability and productivity
- Better support for Jurisdictional and business function initiatives
- Enables a better Customer Experience

Investment Prioritization

IS Projects: 4710 - Data Security

Benefits				Cost				
benefits	Impact	Weight	Score	Cost	Impact		Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	6.750		-24.4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cost	4.725		-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	21.333	%	-22.5%	-2.025
Financial Control	Low	6.2%	0.062	Union/Labor Relations	Low		-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Low		-10.6%	-0.106
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	Medium		-6.6%	-0.198
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Medium		-14.9%	-0.447
Reliability	Medium	10.9%	0.327					
Customer & Community Responsiveness	Medium	5.3%	0.159					
Employee Satisfaction	Medium	4.6%	0.138					
Mitigates a Corporate Risk / Risk of not Doing	Medium=16 to 39	8.9%	0.267					
Jurisdictional Engagement	High	8.2%	1					
	Benej	fit Score:	1.73			Cos	t Score:	-6.08

Overall Priority Score: -4.349

Investment Risk and Complexity Project Risk Score: Risk Score Description: Risk Impact = 5 and Risk Likelihood = 5 39 Project Complexity Project Complexity Score Description: Score:: 16 Key Risks Description: Provide detail on project risks & mitigation strategy: Without these Security improvements we will lose the ability to help employees use applications with more functionality in a more intuitive manner. The Jurisdiction and business functions will not be able to utilize a more reliable and resilient applications that could have helped provide customers with more options when interacting with the Company.

IS Project Dependencies if you don't so a project in the drop down places contact the Diamoins & Berformance town	Renefiting Operating Companies: Charle all that apply

IS Projects:	4710 -	Data Se	ecurity						Select All Companies	Clear All Companie.	s	
									Select All Gas	Select All Electric	□ S	elect All
 					 	 	 	_		 		

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FY18 - Investment Request Summaries - IRSs - Data Security

1. Has a dep	endency on IS Project;			Gen		
2. Has a dep	endency on IS Project;			•	National Grid USA Parent	
3. Has a dep	endency on IS Project;				KeySpan Energy Development Corpora	ation
	, ,				KeySpan Services Inc.	
4. Has a dep	endency on IS Project;				KeySpan Energy Corp	
5. Has a dep	endency on IS Project;				KeySpan Energy Delivery New York	
6. Has a dep	endency on IS Project;				KeySpan Energy Delivery Long Island KeySpan Generation LLC (PSA)	
					KeySpan Glenwood Energy Center	
Business Initiative Dep	endencies				KeySpan Port Jefferson Energy Center	
IS Projects: 4710 - Data Security					KeySpan Energy Trading Svc LLC	
	endency on Biz Initiative	ρ.			Niagara Mohawk Power Corp- Electric Niagara Mohawk Power Corp - Gas	Distribution
1. Has a	,	,		•	Niagara Mohawk Power Corp - Gas	nission
dep	endency on Biz Initiative	е,			Massachusetts Electric Company	11331011
2. Has a					Massachusetts Electric Company - Trai	nsmission
3. Has a	endency on Biz Initiative	е,			Nantucket Electric Company	
den	endency on Biz Initiative	٥			Boston Gas Company	
4. Has a	endency on biz initiative	-,			Colonial Gas Company	
					Narragansett Gas Company	
Project Relationships					Narragansett Electric Company	
	iect Relationship:				Narragansett Electric Company - Trans New England Power Company - Transr	
Minor Works	eet neidtionsinp.				New England Hydro - Trans Corp	111331011
Related Projects:					New England Electric Trans Corp	
				•	NG LNG LP Regulated Entity	
5 11: 10.6 1:11:1						
Enabling IS Capabilities						
Enterprise Content Manag			☐ Enterprise			
Comprehensive Integratio	n Services (CIS)		Reporting o		CS .	
✓ Hybrid Cloud			☐ Networks			
✓ Next Gen Workplace						
Key Milestone Dates:	Select the 1st, 15th or la	st day of the mont	h			
		Begin				
Begin	Begin D	evelopment &	Begin			
Start-up Require	ments & Deign In	nplementation	User Acceptance Testing	Go Liv	e Project Completion	Project Closure
January, 2018				March, 20	20	
Business Resource Estir	nates: # of Full Time	Equivalents				
		•	Dunings Developed	Callina	dinasa 2 : 2 ::	Commant
Start-up Require	ments & Deign Deve 0	elop & Implement 0	Business Resources UAT 0	Go Live Rea 0	diness Post Go Live 0	Support
	-	-	-			
Resourcing Strategy:						
Attached Supporting D	ocuments					
Recommendation Sign-	off					
Role	Name			Title		Date
Business Project Sponsor	John Gilbert			Global Hea	ad IS Service Delivery, Global IS	

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FY18 - Investment Request Summaries - IRSs - Data Security

Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			national grid

FY18 - Investment Request Summaries - IRSs - Orchestration and Self Service



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Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: Orchestration and Self Service





national	grid		Inv	estment Re	equest Sur	nmary - IS	US	FISCAL YEAR	R 2018	
INV ID:	4	1726 Project N	ame: Orchest	tration and Se	If Service					
Program:	Sei	rvice Strategy Roadm	ар							
Sponsor:	Jol	nn Gilbert			Title: Global He	ad IS Service Deli	very, Global IS			
Relationship M	anager: Gr	aham Pool			Title: IS Relation	nship Manager, G	ilobal IS			
Prog Delivery Manager:	Тог	m Cunningham			Title: Head of P	rogramme Delive	ery, Global IS			
Paper Author:	Nic	cola Pennington / Stev	ve Trezza		Title: Business (Consltant - Corpoi	rate IS			
IS Roadmap Ca	tegory: IS	Assurance			usiness Area: Co	rporate IS	Poi	tfolio: IS for IS		
☐ In-Flight Pro	ject? Invest Classi	fication:		ory: Policy Driver	1	Primary Policy D	Oriver: Reliabil	ity	Region: L	IS
✓ Growth Play	book Project	? Shaping Ou	r Future Project?	Energy E	fficiency Project	?				
The provision service mana	ning of Strate	ontext for the project gic Cloud provider(s) s.	will reduce the	number of cloud-						
Environment		reduce time to mark	et, cost and con	ipiexity for Enterp	orise services sur	ur as the Strategi	ic Allalytics Fie	ittoriii, iviobile Appi	ication bevelop	ment
	g solution w	ht business challenge ill reduce time to mar				uch as the Strateg	gic Analytics P	latform, Mobile App	olication Develo	ppment
It will also re	duce the the	time to market for b	usiness solutions	requiring laaS ar	nd PaaS-based se	ervices				
		at is in scope and wh e strategy that will bu			loud services, al	ong with the abili	ity to self-prov	vision resources.		
		entify any core progra eeds to be in place pr			e include INVP n	umbers if known				
-	: Assumption: our current ne	s: etwork/internet as the	main connectivi	ty to the cloud – I	No planned netw	ork analysis/upgr	ades.			
		oject will identify and pex impact - as nothi		/basic services - o	other projects w	ill use the service	s when hoste	d environments are	required. The	refore there is
Indicative	Project C	osts by Fiscal Ye	ar							
(\$M)	Prior Year	•	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
СарЕх		0.750	0.000	0.000	0.000	0.000	0.00		0.00	
ОрЕх		0.500	0.750	0.750	0.000	0.000	0.00	0.000	0.00	0 2.000
Impact on RTB		0.000	0.000	0.000	0.000	0.000	0.00	0.000	0.00	0.000
Indicative	Project C	osts by Delivery	, Phase							
(\$M)		Start-up		R & D		D & I		Closure		Total
СарЕх				0.050		0.70	0			0.750

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FY18 - Investment Request Summaries - IRSs - Orchestration and Self Service

		0.010		0.050		1.935		0.005	2.000
Project Ber	nefits - Type I	only							
(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Type I - CapEx									0.000
Туре І - ОрЕх									0.000
Revenue Generation									0.000

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy.

The business may lose commpetitive advantages as they will be limited to existing infrastructure options which lack current-state capabilities, are costly and take a long time to provision relative to hyper scale offerings. While not solely a financial advantage at first, there will be economies at scale. Developer productivity will be constrained in the current environment; agile project approaches will simply not work. IS will be silently encouraging shadow IT start ups via lack of an internal offering and current speed to deliver, which has compliance and other risks.

Investment Prioritization

III Vestille II I I I I I I I I I I I I I I I I I							
Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	2.000	-24.4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cost	0.750	-11.2%	0
Revenue Generation (annual)		6.2%	0	RTB Efficiency	0.000	% -22.5%	0
Financial Control	Low	6.2%	0.062	Union/Labor Relations	Low	-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Low	-10.6%	-0.106
Regulatory Impact	Low	11.2%	0.112	Elapse Time Duration	Low	-6.6%	-0.066
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Low	-14.9%	-0.149
Reliability	Medium	10.9%	0.327				
Customer & Community Responsiveness	Low	5.3%	0.053				
Employee Satisfaction	Low	4.6%	0.046				
Mitigates a Corporate Risk / Risk of not Doing	Medium=16 to 39	8.9%	0.267				
Jurisdictional Engagement	High	8.2%	1				
	Benej	fit Score:	1.64			Cost Score:	-2.95

Overall Priority Score: -1.308

Investment Risk and Complexity

Project Risk Score:	39	Risk Score Description: Risk Impact = 5 and Risk Likelihood = 5
Project Complexity Score::	14	Project Complexity Score Description:

Key Risks Description: Provide detail on project risks & mitigation strategy:

Now that customers are demanding new services, without this investment in our underlying technology infrastructure, we cannot deliver these new strategic programs.

IS Project Dependencies if you don't see a project in the drop-down please contact the Planning & Performance team.

Benefiting Operating Companies: Check all that apply

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FY18 - Investment Request Summaries - IRSs - Orchestration and Self Service

4726 - Orchesti	ration and Self Service					Companies 🔲 Clear All Co	
1. Has a	dependency on IS Proj	ect;			Select All	Gas Select All E	lectric Select All
2. Has a	dependency on IS Proj	ect;			√ Notional (Grid USA Parent	
3. Has a	dependency on IS Proj	ect;			KeySpan E	nergy Development Corpor	ration
4. Has a	dependency on IS Proj	ect;			KeySpan SKeySpan E	nergy Corp	
5. Has a	dependency on IS Proj	ect;				nergy Delivery New York nergy Delivery Long Island	
6. Has a	dependency on IS Proj	ect;				Generation LLC (PSA) Glenwood Energy Center	
Business Initiative	Dependencies					Port Jefferson Energy Center Energy Trading Svc LLC	
IS Projects: 4726 - Orchest	tration and Self Service					Iohawk Power Corp- Electric	c Distribution
1. Has a	dependency on Biz Init	iative,				Iohawk Power Corp - Gas	
1. Hus u	dependency on Biz Init	iative.				Iohawk Power Corp - Transr setts Electric Company	nission
2. Has a	dependency on Biz Init					setts Electric Company - Tra t Electric Company	ansmission
3. Has a	aepenaency on BIZ Inn	native,			Boston Ga		
4. Has a	dependency on Biz Init	iative,			Colonial G		
						sett Gas Company sett Electric Company	
Project Relationshi	ine					sett Electric Company sett Electric Company - Tran	smission
Troject Relationsin	Project Relationship:					and Power Company - Trans	
Minor Works	rroject neidtionsnip.					and Hydro - Trans Corp	
Related Projects:						and Electric Trans Corp P Regulated Entity	
						.,	
Enabling IS Capabil	lities chack all that ann	ulu					
Enterprise Content I		niy .	□ Enterpr	rise Mahili	'tv		
Comprehensive Inte			Reportin		•		
✓ Hybrid Cloud	3 (,		□ Networ		,		
Next Gen Workplace	2						
Key Milestone Date	es: Select the 1st, 15th	or last day of the mont	th				
Begin Start-up Ri	Begin equirements & Deign	Begin Development & Implementation	Begin User Acceptance Testing	G	o Live	Project Completion	Project Closure
January, 2018				Marci	h, 2019		
Business Resource	Estimates: # of Full 1	ime Equivalents					
Start-up Ri	equirements & Deign 0	Develop & Implement 0	Business Resources UAT 0	Go Live	Readiness 0	Post Go Live 0	
Resourcing Strategy:							
Attached Support	ing Documents						
Attached Support	ing Documents						
Recommendation :	Sign-off						

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FY18 - Investment Request Summaries - IRSs - Orchestration and Self Service

Role	Name	Title	Date
Business Project Sponsor	John Gilbert	Global Head IS Service Delivery, Global IS	
Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			national grid



Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: Virtual Desktop - DaaS





national grid			Investment Req	uest Summary - IS US	FISCAL YEAR	2018
INV ID:	4727	Project Name:	Virtual Desktop - DaaS			
Program:	Service Strate	egy Roadmap				
Sponsor:	John Gilbert		Titl	e: Global Head IS Service Delivery, G	lobal IS	
Relationship Manager:	Bill Kearns		Titl	e: IS Relationship Manager, Global IS	5	
Prog Delivery Manager:	Dave McCune	?	Titl	e: Programme Delivery, Global IS		
Paper Author:	Nicola Pennir	gton / Steve Trez	zza Titl	e: Business Consultant - Corporate IS	5	
IS Roadmap Category:	IS Assurance		Busin	ness Area: Corporate IS	Portfolio: IS for IS	
In-Flight Project?	nvest lassification:	Medium	Category: Policy Driven	Primary Policy Driver: [[]	Reliability	Region: US
✓ Growth Playbook Pro	oject? S	haping Our Futui	re Project? Energy Effic	iency Project?		
Project Description: T To deploy a Virtual De	,	, ,	background information f the US user estate.			
Project Rationale: Hig	ghlight business	s challenge, capa	bility or process the project ad	dresses		

National Grid has implemented a Virtual Desktop environment (VMware Horizin Air) to replace Legacy Stop gap solutions for IBM offshore applications support users.

This solution is built on a cloud platform and provides true scalability and predictable costs - and is able to be leveraged for other use cases where appropriate.

Virtual Desktop allows a user's desktop environment (icons, wallpaper, windows, folders, toolbars, widgets, etc.) to be stored remotely on a server, rather than on a local PC or other client computing device. Therefore can replace the traditional model of providing a device to each user.

Deploying virtual desktop in place of using local nationalgrid provided laptops/desktops will provide the following benefits over the current solution

- PC availability is a challenge due to PC Hardware problems
- PC allocation and installing applications reduced productivity and increases support cost
- . Operating system upgrades, applying security patch for every PC is time consuming
- Constraints on space i.e. in data centre as is not scalable and devices occupy space within the data centre
- · Specific users with unique application requirements and application installations will consume additional time for deployment and installations
- · Moving operating systems and applications inside the data center can create network issues and performance problems
- · Enterprise should scale-up network bandwidth or deploy WAN Optimization devices to combat latency and performance issues to end users

Project Scope: Explain what is in scope and what is not in scope for the project

The scope of this project is to deploy virtual desktop (VMware) to 20% of the US estate.

Activities will include:

- A pilot for Thin Client across appropriate use cases (to include US Contact Centers)
- Deployment to US Contact Centers
- Deployment to other use cases, as identified during the pilot

Excludes: SCI connections

Project Dependencies: Identify any core program or project dependencies, please include INVP numbers if known

There are no dependencies for this project to start R&D phase however INVP 3901 Virtual desktop has to be completed before implementation can start

Basic Project Assumptions:

- All activities will not be within CSC contract and will require NG input.
- RTB will be confirmed during sanction paper/TCO log completion
- The estate size is approximately 30,000 devices
- 20% of the estate is between 5,000 and 6,000 devices
- Start up will decide sanction approach

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Indicative	Indicative Project Costs by Fiscal Year												
(\$M)	Prior Years	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total			
СарЕх		0.550	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.550			
ОрЕх		0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.100			
Impact on RTB		0.250	0.350	0.500	0.000	0.000	0.000	0.000	0.000	1.100			

Indicative Project Costs by Delivery Phase

(\$M)	Start-up	R & D	D & I	Closure	Total
СарЕх		0.020	0.530		0.550
OpEx	0.015	0.000	0.075	0.010	0.100

Project Benefits - Type I only

1		-							
(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Type I - CapEx									0.000
Туре I - ОрЕх									0.000
Revenue Generation									0.000

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. Daas will provide:

- A reduction in cost of new physical PCs. (Current new PC cost is \$448; Thin Client Device cost is \$142)
- A reduction in cost of hardware maintenance as the end point device is a Dumb Terminal, Thin Client Device.
- The ability to offload end point cost or extend the lifecycle of existing PCs.
- Scalability to add more users as needed.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.100	-24.4%	732
CapEx Annual Savings		5.1%	0	CapEx Cost	0.550	-11.2%	0
Revenue Generation (annual)		6.2%	0	RTB Efficiency	636.364	% -22.5%	-2.025
Financial Control	Low	6.2%	0.062	Union/Labor Relations	Low	-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Medium	-10.6%	-0.318
Regulatory Impact	Low	11.2%	0.112	Elapse Time Duration	Medium	-6.6%	-0.198
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Low	-14.9%	-0.149
Reliability	Low	10.9%	0.109				
Customer & Community Responsiveness	Low	5.3%	0.053				
Employee Satisfaction	Medium	4.6%	0.138				
Mitigates a Corporate Risk / Risk of not Doing	Medium=16 to 39	8.9%	0.267				
Jurisdictional Engagement	High	8.2%	1				
	Benej	fit Score:	1.52			Cost Score:	-3.86
		C	Overall Pri	ority Score: -2.339			

Investment Risk and Complexity

Risk Score Description:

FY18 - Investment Request Summaries - IRSs - Virtual Desktop - DaaS

	39	Impact score - 5, Likelihood scor	re - 5	
Project Complexity Score::	14	Project Complexity Score Descrip	ption:	
Key Risks Description: Prov	vide detail on pro	ject risks & mitigation strategy:		
		n't see a project in the drop-down please co	ontact the Planning & Performance tea	
IS Projects: 4727 - Virtual	Desktop - DaaS			Select All Companies Clear All Companies Select All Gas Select All Electric Select A
1. Has a	dependency (on IS Project;		Gen Select All Electric Select Al
2. Has a	dependency (on IS Project;		✓ National Grid USA Parent
3. Has a	dependency (on IS Project;		KeySpan Energy Development Corporation
				✓ KeySpan Services Inc.
4. Has a	dependency (on IS Project;		KeySpan Energy Corp
5. Has a	dependency of	on IS Project;		 KeySpan Energy Delivery New York KeySpan Energy Delivery Long Island
6. Has a	dependency (on IS Project;		KeySpan Generation LLC (PSA) KeySpan Generation LLC (PSA)
				KeySpan Glenwood Energy Center
Business Initiative	Dependenc	cies		KeySpan Port Jefferson Energy Center
IS Projects: 4727 - Virtua				 ✓ KeySpan Energy Trading Svc LLC ✓ Niagara Mohawk Power Corp- Electric Distribution
	•	on Biz Initiative,		Niagara Mohawk Power Corp - Gas
1. Has a				Niagara Mohawk Power Corp - Transmission
2. Has a	dependency (on Biz Initiative,		Massachusetts Electric Company Massachusetts Electric Company - Transmission
	dependency (on Biz Initiative,		Massachusetts Electric Company - Transmission Nantucket Electric Company
3. Has a	,	,		Boston Gas Company
4. Has a	dependency (on Biz Initiative,		Colonial Gas Company
				Narragansett Gas Company Narragansett Electric Company
Project Relationsh	nins			 Narragansett Electric Company Narragansett Electric Company - Transmission
1 Toject Relationsi	Project Relati	ionshin:		New England Power Company - Transmission
Minor Works	r roject neidt.	(S.1511)		New England Hydro - Trans Corp
Related Projects:				New England Electric Trans CorpNG LNG LP Regulated Entity
				NG LNG LP Regulated Entity
Enabling IS Capab				
Enterprise Content		•	☐ Enterprise	
Comprehensive Int	egration Services	s (CIS)		and Analytics
Hybrid Cloud			□ Networks	
Next Gen Workpla	ce			
Key Milestone Da	tes: Select the	1st, 15th or last day of the mont	h	
Begin	Begin	<i>Begin</i> Development &	Begin	
-	Requirements & I	-	User Acceptance Testing	Go Live Project Completion Project Closure
June, 2017				March, 2018
Business Resource	Estimates:	# of Full Time Equivalents		
Start-up O	Requirements & I	Deign Develop & Implement 0	Business Resources UAT 0	Go Live Readiness Post Go Live Support 0 0

Niagara Mohawk Power Corporation d/b/a National Grid Case No. 17-E-0238 and 17-G-0239 Attachment 6 to DPS 275 IS-4 Page 197 of 250

6/14/2017 FY18 - Investment Request Summaries - IRSs - Virtual Desktop - DaaS

Resourcing Strategy:	sourcing Strategy:									
Attached Supporting Do	ocuments									
Recommendation Sign-o	ff									
Role	Name	Title	Date							
Business Project Sponsor	John Gilbert	Global Head IS Service Delivery, Global IS								
Business Relationship Manager	Bill Kearns	IS Business Relationship Manager								
IS Program Delivery Manager	Dave McCune	IS Program Delivery Manager								
			national grid							



Planning & Performance Management → FY18 - Investment Request Summaries - IRSs: SCI connections





national grid			Investment	Requ	est Sum	mary -	IS US	FISCAL	YEAR 2018
INV ID:	4495	Project Name:	SCI connections						
Program:	Service Strate	egy Roadmap							
Sponsor:	John Gilbert			Title:	Global Head	IS Service L	Delivery, Globo	ıl IS	
Relationship Manager:	Bill Kearns			Title:	IS Relations	nip Manage	r, Global IS		
Prog Delivery Manager:	Dave McCune	2		Title:	Programme	Delivery, G	lobal IS		
Paper Author:	Nicola Pennir	ngton / Steve Trez	za	Title:	Business Co.	nsultant - Co	orporate IS / S	ervice Strategy	
IS Roadmap Category:	IS Assurance			Busine	ess Area: Corp	orate IS		Portfolio: IS for	r IS
In-Flight Project?	nvest lassification:	Medium	Category: Policy Dri	ven	F	rimary Poli	cy Driver: Reli	ability	Region: Global
Growth Playbook Pro	ject? \square S	haping Our Futu	re Project? Energ	y Efficie	ncy Project?				
Project Description: T	he context for	the project with l	packground information						
Implementation of in a lower price point th			ices to take advantage o	f the vei	rizon SCI conr	ections ser	vice, which wi	ll provide conne	ectivity to cloud service providers a
Project Rationale: Hig	ghlight busines.	s challenge, capa	bility or process the proj	ect addr	resses				
Software as a service	applications t	hat will have a hi	gh volume of traffic curre	ntly hav	e to install the	eir own dedi	icated network	links to suppor	rt the services. Which come at a co

to install and fixed price to support.

Verizon now offer a service to provide dedicated links to services, without the need to install our own infrastructure. This new service has the advantage that they are charged on the basis of volume of data. Meaning that we only pay for the bigger volumes when we use it. For some applications (particularly those which have variable volumes of data this will reduce costs).

In order to use this new service we need to ensure that we maintain our required security services on SCI as we would with any dedicated network link. To that end, SCI can utilize most of the existing services in the VSTIG, but may require some additional infrastructure and/or configuration to use the service. This project is to identify and implement any infrastructure and establish configurations to support the deployment of future SCI services. In addition implement service wrap.

Project Scope: Explain what is in scope and what is not in scope for the project

The project will set up a new service to enable applications to use the Verizon SCI Connections service. In addition will test the service set up by supporting 1 US project through the process. Deliverables include:

- The project will purchase and implement any required infrastructure
- Implementation of required network configuration and traffic routing to support the use of the SCI service.
- Complete Service Design, Definition and implementation of required Service Wrap. (note it is expected that the SCI connections service will fit under the standard set of VSTIG services as it is a commercial construct of a 3rd party MPLS circuit.
- For service support NG has some additional obligations under SCI, so the requirements and demarcations of the support model need to be defined.
- Provision of support to 2 projects to set up service (1 project in each region) to ensure processes operate correctly.

In addition

DR&S review of the service

Project Dependencies: Identify any core program or project dependencies, please include INVP numbers if known none

Basic Project Assumptions:

The scope of the project does not include the moving of any current saas services onto the new SCI connections. However in order to test the service the project will identify and support 2 projects as they access and set up the service. It is expected in the most part projects will be connect applications as part of a sanctioned project. Where exisiting services can save money by switching then projects will be brought forward to make the switch.

This will be run as a regional US only project - however there is a mirror project in the UK - the two projects will work together to ensure that any synergies and economies of scale are realised.

Indicative Project Costs by Fiscal Year

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FY18 - Investment Request Summaries - IRSs - SCI connections

(\$M)	Prior Years	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
СарЕх		0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.100
OpEx		0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.400
Impact on RTB		0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.800

Indicative Project Costs by Delivery Phase

(ŞIVI)	Start-up	K & D	D&I	Ciosure	ιοιαι
СарЕх		0.000	0.000		0.000
OpEx	0.010	0.035	0.070	0.005	0.120

001

D 0 D

Project Benefits - Type I only

(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Туре І - СарЕх									0.000
Type I - OpEx									0.000
Revenue Generation									0.000

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. Benefits are to enable cost saving opportunities through providing cheaper dedicated network links priced by data volume rather than size of a link.

Remove pressure on VSTIG services from services that create a high volume of data flow accross the internet through providing access to dedicated link at reduced cost and quicker set up times.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.400	-24.4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cost	0.100	-11.2%	0
Revenue Generation (annual)		6.2%	0	RTB Efficiency	700.000 %	-22.5%	-2.025
Financial Control	Low	6.2%	0.062	Union/Labor Relations	does not apply	-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Low	-10.6%	-0.106
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	Medium	-6.6%	-0.198
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Low	-14.9%	-0.149
Reliability	Medium	10.9%	0.327				
Customer & Community Responsiveness	Low	5.3%	0.053				
Employee Satisfaction	Low	4.6%	0.046				
Mitigates a Corporate Risk / Risk of not Doing	High= 40 or more	8.9%	0.801				
Jurisdictional Engagement	High	8.2%	1				
	Benej	fit Score:	2.07		Co	st Score:	-4.79

Overall Priority Score:

Investment Risk and Complexity

Project Risk Score:		Risk Score Description:
Project Complexity Score::		Project Complexity Score Description:
Score::	14	

FY18 - Investment Request Summaries - IRSs - SCI connections

6/14/2017

If the SCI service was	: Provide detail on project risk s not deployed, the alternative ries a higher cost and longer le	options of Internet VPN	or dedicated MPLS network	would need to be deploy	yed. A dedicated MPLS netv	vork is most simlar in
IS Project Den	endencies if you don't see a p	roject in the dron-down please o	ontact the Planning & Performance t	Renefitin	ng Operating Compar	ies: Check all that apply
IS Projects: 4495 - 50		roject in the drop-down piease c	onact the Flamming & Ferrormance t		Companies Clear All Co	
1. Has a	dependency on IS Pr	oiect:		Select All	•	•
2. Has a	dependency on IS Pr			Gen		
3. Has a	dependency on IS Pr				Grid USA Parent Energy Development Corpor	ration
S. Tius u	dependency on is Pr	ojeci,		KeySpan	Services Inc.	ation
4. Has a	dependency on IS Pr	oject;		✓ KeySpan		
5. Has a	dependency on IS Pr	oject;			Energy Delivery New York Energy Delivery Long Island	
6. Has a	dependency on IS Pr	oject;		KeySpan	Generation LLC (PSA)	
					Glenwood Energy Center Port Jefferson Energy Center	r
Business Initia	ative Dependencies				Energy Trading Svc LLC	
IS Projects: 4495 - S					Mohawk Power Corp- Electri	c Distribution
1. Has a	dependency on Biz II	nitiative,			Mohawk Power Corp - Gas Mohawk Power Corp - Transi	mission
2. Has a	dependency on Biz II	nitiative,		✓ Massachi	usetts Electric Company	
	dependency on Biz II	nitiative,			usetts Electric Company - Tra et Electric Company	ansmission
3. Has a				✓ Boston G	as Company	
4. Has a	dependency on Biz II	nitiative,			Gas Company sett Gas Company	
				Narragan	sett Electric Company	
Project Relation					sett Electric Company - Tran land Power Company - Trans	
☐ Minor Works	Project Relationship.			✓ New Engl	land Hydro - Trans Corp	1111551011
Related Projects:					land Electric Trans Corp .P Regulated Entity	
				₩ NG LNG L	LP Regulated Entity	
	pabilities check all that a	oply				
	ntent Management (ECM)			rise Mobility		
Hybrid Cloud	ve Integration Services (CIS)		□ Reporti	ng and Analytics		
Next Gen Wo			= Networ	A. 3		
Key Milestone	e Dates: Select the 1st, 15	th or last day of the mont	h			
Begin	Begin	<i>Begin</i> Development &	Begin			
Start-up	Requirements & Deign	Implementation	User Acceptance Testing	Go Live	Project Completion	Project Closure
April, 2017				September, 2017		
Business Reso	ource Estimates: # of Ful	l Time Equivalents				
Start-up 0	Requirements & Deign 0	Develop & Implement 0	Business Resources UAT 0	Go Live Readiness 0	Post Go Live 0	
Resourcing Strategy:						

FY18 - Investment Request Summaries - IRSs - SCI connections

6/14/2017

Attached Supporting D	ocuments		
Recommendation Sign-	off		
Recommendation Sign-	off Name	Title	Date
		Title Global Head IS Service Delivery, Global IS	Date
Role	Name		Date

6/14/2017

Planning & Performance Management ${\scriptstyle \blacktriangleright}$ FY18 - Investment Request Summaries - IRSs: US SAP: Dynamic Storage Tiering





national	grid		Inve	stment Re	equest Sun	nmary - IS I	US F	ISCAL YEA	K 2018	
NV ID:	4560	Project Na	ne: US SAP:	Dynamic Stor	age Tiering					
rogram:										
Sponsor:	Doneen i	Hobbs and Anura	ag Bhargava	7	Title: VP US Sha	red Services and S	VP US CIO			
Relationship Mo	anager: Joel Sem	nel		7	Title: Relationsh	ip Manager				
Prog Delivery Manager:	Samir Pa	arikh		7	Title: Director Po	ortfolio SAP Enterp	orise			
Paper Author:	Ella Weis	sbord		1	Title: Business C	onsultant				
S Roadmap Ca	tegory: Enterpri	se SAP		В	usiness Area: US	F,SS&C	Portfo	olio: Other		
In-Flight Pro	ject? Invest Classification	on:	Catego	ory: Policy Driver	ı	Primary Policy Dr	iver: Reliability	′	Region: US	
Growth Play	•	Shaping Our I	Future Project?	Energy E	fficiency Project?	,				
	ription: The context riven project will in									
dynamic tieri	eporting environme ing, which would a options for storing	Illow HANA to sca	le so that it can	handle the incre	easingly growing					
	nale: Highlight bus growth and exploit									
Ident Estab Project Depe INVP3924 - U	ment dynamic tier ify and Move low u dilsh a procedure to undencies: Identify o JS SAP Hosting Stra Assumptions:	usage and high voor move to tiered so	torage and in n	nemory as neede		umbers if known				
	Project Costs			EV 2022	EVaca	EV 2022	51/2022	EV2024	EV 2025	T
(\$M) apEx	Prior Years	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total 1.3
pEx		0.464								0.4
npact on RTB		0.464	0.236	0.236	0.236	0.236				1.1
		l. D."	DI					l	I	
		ny Delivery	rnase							
						_				
(\$M)		art-up		R & D		D & I		Closure	?	Total
Indicative (\$M) TapEx				R & D 0.446 0.191		D & I 0.909		Closure	.091	Total 1

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6/14/2017 FY18 - Investment Request Summaries - IRSs - US SAP: Dynamic Storage Tiering

Project Ber	efits - Type I	only							
(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Туре I - СарЕх									0.000
Type I - OpEx									0.000
Revenue Generation									0.000

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy.

- · Optimizing the storage use
- Increase usage of HANA platform for Business Analytics and Reporting
- Performance improvement
- Allowing non-SAP data storage in HANA for cross-functional reporting

Investment Prioritization

1. Has a Parallel

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.464	-24.4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cost	1.355	-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	121.919 %	-22.5%	-2.025
Financial Control	does not apply	6.2%	0	Union/Labor Relations	does not apply	-9.8%	0
Soft Financial Benefits	High	3.8%	0.342	Dependencies	does not apply	-10.6%	0
Regulatory Impact	Medium	11.2%	0.336	Elapse Time Duration	Low	-6.6%	-0.066
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	does not apply	-14.9%	0
Reliability	High	10.9%	0.981				
Customer & Community Responsiveness	does not apply	5.3%	0				
Employee Satisfaction	Low	4.6%	0.046				
Mitigates a Corporate Risk / Risk of not Doing	Medium=16 to 39	8.9%	0.267				
Jurisdictional Engagement	High	8.2%	1				
	Bene	fit Score:	2.71		Co	st Score:	-5.30

		Overall Priority Score: -2.5	305
		Overall Priority Store2.3	103
Investment Risk a	nd Comple	xity	
Project Risk Score:	38	Risk Score Description: Based on Financial Impact (5) and Likelihoodof failure (5)	
Project Complexity Score::	19	Project Complexity Score Description: Please see complexity matrix attached	
Key Risks Description: Pro Maturity of dynamic stora		roject risks & mitigation strategy:	
IS Project Depend	lencies if you	don't see a project in the drop-down please contact the Planning & Performance team.	Benefiting Operating Companies: Check all that apply
IS Projects: 4560 - US SAF	•	rage Tiering	Select All Companies Clear All Companies Select All Gas Select All Electric Select All

Gen

dependency on IS Project; 3924 - Host Transition

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FY18 - Investment Request Summaries - IRSs - US SAP: Dynamic Storage Tiering

2. Has a depo	pendency on IS Project;			N. 1	
3. Has a depo	pendency on IS Project;			National Grid USA Parent KeySpan Energy Development Corpora	ation
4. Has a dep	pendency on IS Project;		•	KeySpan Services Inc.	
				KeySpan Energy Corp KeySpan Energy Delivery New York	
5. Has a depo	pendency on IS Project;			KeySpan Energy Delivery New York KeySpan Energy Delivery Long Island	
6. Has a dep	pendency on IS Project;		•	KeySpan Generation LLC (PSA)	
				KeySpan Glenwood Energy Center	
Business Initiative Depe	endencies			KeySpan Port Jefferson Energy Center KeySpan Energy Trading Svc LLC	
IS Projects: 4560 - US SAP: Dyna	imic Storage Tiering			Niagara Mohawk Power Corp- Electric	Distribution
1. Has a	pendency on Biz Initiative,			Niagara Mohawk Power Corp - Gas	
	pendency on Biz Initiative,			Niagara Mohawk Power Corp - Transm	nission
2. Has a	enacticy on biz initiative,			Massachusetts Electric Company Massachusetts Electric Company - Trai	nsmission
3. Has a	pendency on Biz Initiative,			Nantucket Electric Company	nsinission
	andana, an Die Initiativa			Boston Gas Company	
4. Has a	pendency on Biz Initiative,			Colonial Gas Company	
				Narragansett Gas Company Narragansett Electric Company	
Project Relationships				Narragansett Electric Company - Trans	smission
Proj	ject Relationship:		•	New England Power Company - Transı	
Star	ndalone Project			New England Hydro - Trans Corp	
Related Projects:				New England Electric Trans Corp NG LNG LP Regulated Entity	
				NG LNG LP Regulated Entity	
Enabling IS Capabilities	check all that apply				
☐ Enterprise Content Manag	gement (ECM)	☐ Enterprise	Mobility		
Comprehensive Integration	n Services (CIS)	Reporting a	and Analytic	s	
☐ Hybrid Cloud		□ Networks			
Next Gen Workplace					
Key Milestone Dates: s	Select the 1st, 15th or last day of the month	1			
Begin	Begin Development &	Begin			
	ements & Deign Implementation	User Acceptance Testing	Go Live	Project Completion	Project Closure
January, 2017			July, 2017	,	
Business Resource Estin	mates: # of Full Time Equivalents				
Start-up Requires	ements & Deign Develop & Implement	Business Resources UAT	Go Live Read	diness Post Go Live	Support
0	0 0	0	0	0	συρροπί
December Charles					
Resourcing Strategy:					
Attached Supporting D	Documents				
INVP4560_Complexity_Matrix	XISX				
	**				
Recommendation Sign-	·off				I
Role	Name		Title		Date
Business Project Sponsor	Doneen Hobbs and Anuraag Bhargava		VP US Shar	ed Services and SVP US CIO	

Niagara Mohawk Power Corporation d/b/a National Grid Case No. 17-E-0238 and 17-G-0239 Attachment 6 to DPS 275 IS-4 Page 205 of 250

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FY18 - Investment Request Summaries - IRSs - US SAP: Dynamic Storage Tiering

Business Relationship Manager	Joel Semel	IS Business Relationship Manager	
IS Program Delivery Manager	Samir Parikh	IS Program Delivery Manager	
			national grid

nationalgrid

US Sanction Paper

Title:	US Office 365 ICE Replacement	Sanction Paper #:	USSC-17-154
Project #:	INVP 4491	Sanction Type:	Sanction
Operating Company:	National Grid USA Svc. Co.	Date of Request:	April 12, 2017
Author:	Paul Cudby	Sponsor:	John Gilbert, Global Head IS Service Delivery
Utility Service:	IS	Project Manager:	Zakariyya Ahmedabadi

1 Executive Summary

1.1 Sanctioning Summary

This paper requests sanction of INVP 4491 in the amount \$4.291M with a tolerance of +/- 10% for the purposes of Full implementation

This sanction amount is \$4.291M broken down into:

\$3.316M Capex \$0.974M Opex

\$0.000M Removal

1.2 Project Summary

This investment is required to replace the current Instant Messaging, Collaboration, and Email (ICE) services with a set of similar, or enhanced, services provided by Office 365. Office 365 will provide a more effective collaboration and email service (Microsoft Office 365) to meet the business demand for additional capabilities (eg: collaboration with external parties) and provide any enabling infrastructure technology necessary before the ICE service contract expires.

1.3 Summary of Projects

Project Number Project Type (Elec only)		Proje	Estimate Amount (\$M)	
INVP 4491	Project Type	Office 365 US		4.291
			Tota	4.291

1.4 Associated Projects

N/A

1.5 Prior Sanctioning History

N/A

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US Sanction Paper

1.6 Next Planned Sanction Review

Date (Month/Year)	Purpose of Sanction Review	
Jun 2018	Project closure	A CONTRACTOR

1.7 Category

Category	Reference to Mandate, Policy, NPV, or Other						
O Mandatory	The IS Leadership Team have signed off and approved the Global Strategy to implement Office 365 as the						
	preferred solution to replace the current Instant Messaging, Collaboration and Email services						
O Justified NPV	The Administration of the Annual III and the Annual Statement Statement (Annual III) and the Annual III and the Annual II and the Annual III and the Annual II and the Annual III and the Annual III and the Annual III and the Annual II and the Annual III and the Annual II and the Annual III and the Annual II and the Annua						
O Other	The company of the Control of the Co						

1.8 Asset Management Risk Score

Asset Management Risk Score: 34

Primary Risk Score Driver: (Policy Driven Projects Only)

Reliability
 O Environment
 O Health & Safety
 O Not Policy Driven

1.9 Complexity Level

High ComplexityO Medium ComplexityO Low ComplexityO N/A

Complexity Score: 25

1.10 Process Hazard Assessment

A Process Hazard Assessment (PHA) is required for this project:

O Yes O No

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1.11 Business Plan

Business Plan Name & Period	Project included in approved Business Plan?	Over / Under Business Plan	Project Cost relative to approved Business Plan (\$)
IS Investment Plan FY2018-22		O Over O Under © NA	\$0.000M

1.12 If cost is not aligned with approved Business Plan how will this be funded?

1.13 Current Planning Horizon

			Current Planning Horizon								
	-	Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	Yr. 6 +				
\$M	Prior Yrs	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total			
CapEx	0.000	3.316	0.000	0.000	0.000	0.000	0.000	3.316			
OpEx	0.000	0.974	0.000	0.000	0.000	0.000	0.000	0.974			
Removal	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
CIAC/Reimbursement	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Total	0.000	4.291	0.000	0.000	0.000	0.000	0.000	4.291			

1.14 Key Milestones

Milestone	Target Date: (Month/Year)
Start Up	Jan 2017
Begin Requirements and Design	Apr 2017
Full Sanction	Apr 2017
Begin Development and Implementation	Aug 2017
Move to Production / Last Go Live	Mar 2018
Project Complete	Apr 2018
Project Closure Sanction	Jun 2018

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1.15 Resources, Operations and Procurement

Resou	ırce Sourci	ng	
Engineering & Design Resources to be provided			
Construction/Implementation Resources to be provided			
Reso	urce Delive	ry	
Availability of internal resources to deliver project:	O Red	O Amber	⊙ Green
Availability of external resources to deliver project:	O Red	O Amber	
Opera	tional Impa	ct	
Outage impact on network system:	O Red	O Amber	
Procur	ement Impa	act	
Procurement impact on network system:	O Red	O Amber	⊙ Green

1.16 Key Issues (include mitigation of Red or Amber Resources

1	Network Infrastructure - VStig upgrade needs to deliver required bandwidth capacity including the upgrade of existing Proxy servers
2	Microsoft Enterprise License Agreement need to be renewed in time to prevent delays to delivery timelines
3	Transformation of users from XP to Windows 7

1.17 Climate Change

Contribution to National Grid's 2050 80% emissions reduction target:	Neutral	O Positive	O Negative
Impact on adaptability of network for future climate change:	Neutral	O Positive	O Negative

1.18 List References

N/A

Niagara Mohawk Power Corporation d/b/a National Grid Case No. 17-E-0238 and 17-G-0239 Attachment 6 to DPS 275 IS-4 Page 210 of 250

US Sanction Paper



2 Decisions

The US Sanctioning Committee (USSC) at a meeting held on April 12, 2017:

- (a) APPROVED this paper and the investment of \$4.291M and a tolerance of +/-10%.
- (b) NOTED the RTB reduction of \$0.857M (per annum) for 5 years.
- (c) NOTED that Zakarry Ahmedabadi has the approved financial delegation.

Signature......Date

Christopher Kelly
Senior Vice President, Electric Process & Engineering
US Sanctioning Committee Co – Chair Person



3 Sanction Paper Detail

Title:	US Office 365 ICE Replacement	Sanction Paper #:	USSC-17-154
Project #:	INVP 4491	Sanction Type:	Sanction
Operating Company:	National Grid USA Svc. Co.	Date of Request:	April 12, 2017
Author:	Paul Cudby	Sponsor:	John Gilbert, Global Head IS Service Delivery
Utility Service:	IS	Project Manager:	Zakariyya Ahmedabadi

3.1 Background

The way we work internally and interact with our external customers and partners is changing and is driving new requirements for improved collaboration, mobility and user experience.

The current ICE platform cannot support the business demand due to limitations in the current functionality and the inability of the current service to be upgraded. A few of the issues are:

- High risk threats to the service from capacity pressure. On average, an additional 1.5TB to 2TBs of data are being added each month, resulting in us nearing our storage capacity and needing to implement new storage to cope with demand.
- These uplifts in storage as required result in additional effort risk and cost
- The EMC (N.B. this is the branded name of the storage) hardware storage supporting the current service is at end of operational life support from the manufacturer (Dell)
- ICE cannot integrate with Cloud services in an efficient manner. For example, Integrations with Salesforce, EFSS (Enterprise File Sync and Share), success factors, etc.

The existing ICE contract expired in October 2016. It has been extended for another 26 months with an early exit clause. The contract could be extended further if required, but the existing service does not deliver to the business the required capabillites listed below.

- Reliability of the service
- Demand for improved collaboration (including external collaboration)
- Greater mobile device capability
- Enhanced storage capability
- Promoting the "Anytime, Anywhere" working model

The current plan is to gradually move away from ICE by the end of December 2017.

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3.2 Drivers

The business drivers for this investment are:

- To ensure the ongoing reliable delivery of the service, as there are issues with the existing service in place
- To meet business demand for improved collaboration (including external collaboration requirements), mobile device capability and "Anytime, Anywhere" working model.

Whilst it is not the main reason for delivering this project, it should be noted that the successful completion and implementation will also deliver a reduction in RTB.

3.3 Project Description

This project will include two key areas of work:

- 1. Refresh the requirements / gap analysis against Office 365
- 2. Implementation of Office 365 and migrate users off ICE

This investment will deliver:

- Establish platform and foundation services, for example, ADFS (Active directory Federation Service) and co-existence with ICE
- Implementation of Office 365 capabilities including Exchange, SharePoint Online and Skype for Business (to replace MS Lync on an Instant Messaging basis) and other identified services.
- Migration of all US users and services

In Scope

Office 2010 assessment

 Office 2010 upgrade assessment in scope – Implementation of the upgrade is dependent on the outcome of the assessment

Collaboration and social

- Migrate UK SharePoint 2010 sites to SharePoint Online
- Provide ability for external collaboration with Partners and Suppliers
- Provide ability to access SharePoint sites on mobile devices
- Improved user experience using latest versions of office online

Email and Calendar

- Migrate US Mailboxes and Calendar
- Assessment of pst and archive files during detailed design phase and plan for migration
- Improve/enhance Webmail experience (Exchange Online)
- Increased mail box sizes

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US Sanction Paper

 Provide ability to access emails on Mobile devices. (Windows Phones, iOS, and other Android devices)

External Instant Messaging

- Migrate As-Is features of Lync
- Provide ability to use new web version of Skype for Business instead of the current Lync thick client

Cloud storage

Ability to use One Drive- Private cloud storage that can be accessed from any where

Training and Adoption

Adoption requires much more than communication and training. A business change management approach will be run to ensure:

Awareness

- of the need for change
- of the nature of the change

Desire

- To support the change
- To Participate and engage

Knowledge

- On how to change
- On how to implement new skills and behaviours

Ability

- To implement the change
- To demonstrate performance

Reinforcement

- To sustain the change
- To build a culture and competence around change to business processes and use of office 365 capabilities

Operational Support and Monitoring

Delivery of a full support model of the Office 365 services and provide administrative controls, Monitoring and Reporting

Security and Mobile Data Management

Delivery of the capabilities in line with the National Grid DR&S security principles and industry best practice

N.B. The migration scope can be found in the Appendices section



3.4 Benefits Summary

The project is expected to deliver the following benefits:

Saving in RTB:

 The successful completion and delivery of this project will result in a reduction in RTB

Reliable service provided:

- Enhanced storage capability Office 365 uses cloud based storage, giving ability to share large files securely, benefitting email and SharePoint services
- Network File Share E3 licence option gives potential to unlimited storage, increasing collaboration
- Archiving solution Global information records management (GIRM) has requirements to archive the information as per data protection act and regulations. Office 365 E3 licences provide user friendly and common solution for archiving

New service will provide new capabilities:

- Mobility Office 365 is designed to support mobility whether by smartphone, tablet or PC
- External collaboration Office 365 is designed to support external collaboration across all services. This could be supporting instant messaging with our stakeholders, making data in SharePoint available to Joint Venture partners, or collaborating with partners
- Social collaboration The social collaboration features of Office 365 ensure employees feel more involved leading to improvements in employee engagement
- Agile Task Management Office 365 has an inbuilt Planner service which eliminates the need to purchase an Agile task Management solution (e.g. Trello)
- Power BI (Business Intelligence) Opportunity for future savings by exploiting Power BI as a potential strategic reporting tool
- Future Desktop Office Upgrades E3 licences come with Pro Plus, helping mitigate future upgrade costs of Office 2010
- Potential for future capabilities Office 365 has many additional features which can be implemented to add further value as required

3.5 Business and Customer Issues

None identified at this stage

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3.6 Alternatives

Alternative 1: Do Nothing - Practically, there is no do nothing option, the current contract is due to expire at the end of 2018. The current service does not deliver required capabilities, and the infrastructure is set to fail due to capacity issues. DR&S need new functionality on the anti-virus defences entailing a move away from current technology. Rejected

Alternative 2: Replace ICE with Office 365 (All E1 licences) - This option does not align with all business needs and will at some point in near future require to upgrade to E3 licences. Despite the E1 licences being initially cheaper than E3 licences, E1 licence option would entail buying off the shelf solutions for Data Loss Prevention (DLP), Archiving, E-Discovery, etc. Future projects to upgrade Office would also be costlier with E1 option. Rejected

Alternative 3: Replace ICE with Cloud other than Office 365 - Comparable solutions from competitors are not a significant differentiator. However, user adoption and training, migration and magnitude of the change including co-existence will likely be more costly and complex, due to moving to a new technology stack. It will be time consuming and NG will incur high costs both due to maintenance of current aged infrastructure and due to lengthy prospective implementation. Rejected

3.7 Safety, Environmental and Project Planning Issues
None at this stage



3.8 Execution Risk Appraisal

		Productility	Impact		act Score					Post Trigger Mitigation Plan	
Number	Detailed Description of Risk / Opportunity		Cost	Sched ale	School of School		Strategy	Pre-Trigger Mitigation Plan	Residual Risk		
1	There is a risk of technicator cost limitations based on the discovery phase output of the following services: • Office 2010 upgrade to Office 2016/Pro-plus • All other public shared drives • Personal folders (if applicable) to Onedrive • Legacy Sharepoint migration (2007/03) • Access/Connective of any part of the business that is run from offshore	3	4	4	12	12	Mitigate	Risk margin allowance included within this sanction based on high level assumptions prior to output of discovery phase. Upon discovery assessment output proposal to be presented to Project Board. If cost or schedule impact of including these initiatives are considerable then a follow on phase to the project or re-sanction to cover funding will need to be considered.			
2	There is a risk that D&I phase might be more complex and/or there is a change in requirements causing project achedule slippage	3	2	2	6	6	Mitigate	Risk Margin to cover any additional engagement	T I		
3	Active Directory infrastructure project changes – risk of rework and impact to end users	3	3	2	9	6	Mitigate	Close working between Active Directory and Office 365 projects to ensure a robuts business change plan	-64	sort.	
4	There is a potential risk that add illonel bandwidth is required as more Office 365 features/services are introduced	3	2	3	6	9	Mitigate	Network performance reports and validation of network design Staging and phasing the networking upgrade approach during discovery phase. Diffice 365 project will also be working closely with VStig upgrade plans/project.	- 9	in put	
5	A risk that external dependencies could impact on overall migration timescales.	3	1	2		6	Accept	The full migration will have dependencies on various atternal projects and business critical period's/change freeze -e.g. bandwidth increase, BAU patching of clients, year/month end. These will be identified in at the start of the R&D phase and work with the business/projects to identify completion dates and incorporate into plan			
6	Business Maturity for handling the change.	3	1	1		ě	Accept	Business Change and adoption management workshops will be run across the business	man and		

3.9 Permitting

N/A

3.10 Investment Recovery

3.10.1 Investment Recovery and Regulatory Implications

Recovery will occur at the time of the next rate case for any operating company receiving allocations of these costs.

3.10.2 Customer Impact

N/A

3.10.3 CIAC / Reimbursement

N/A

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3.11 Financial Impact to National Grid

3.11.1 Cost Summary Table

						100	Curren	t Planning H	lorizon		
Project Number		Project			Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	Yr, 6+	H-FFXF
	Project Title	Estimate Level (%)	Spend (\$M)	Prior Yrs	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
	Office 365 US		CapEx	0.000	3.316	0.000	0.000	0.000	0.000	0.000	3.318
INVP 4491		Est Lvi (e.g. +/- 10%)	OpEx	0.000	0.974	0.000	0.000	0.000	0.000	0.000	0.974
IIAAL 4481			Removal	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
			Total	0.000	4.291	0.000	0.000	0.000	0.000	0.000	4.291
			CapEx	0.000	3.316	0.000	0.000	0.000	0.000	0.000	3.316
Tetal Design Counting			OpEx	0.000	0.974	0.000	0.000	0.000	0.000	0.000	0.974
	Total Project Sanction			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Rem				4.291	0.000	0.000	0.000	0.000	0.000	4 291

3.11.2 Project Budget Summary Table

Project Costs per Business Plan

			Current Planning Horizon					
	Prior Yrs	Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	Yr. 6+	
\$M	(Actual)	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CapEx	0.000	3.316	0.000	0.000	0.000	0.000	0.000	3.316
OpEx	0.000	0.974	0,000	0.000	0.000	0.000	0.000	0.974
Removal	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total Cost in Bus. Plan	0.000	4.291	0.000	0.000	0.000	0.000	0.000	4.291

Variance (Business Plan-Project Estimate)

		Current Planning Horizon						
	Prior Yrs	Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	Yr. 6+	
\$M	(Actual)	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
CapEx	0.000	0.000	0.000	0,000	0.000	0.000	0.000	0.000
ОрЕх	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Removal	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total Cost in Bus. Plan	0.000	0.000	0,000	0.000	0.000	0.000	0.000	0.000

3.11.3 Cost Assumptions

- This estimate was developed in 2017 using the standard IS estimating methodology; the accuracy level of estimate is identified in table 3.11.1
- Office 365 implementation will complete before ICE contract expiry in Dec 2018.
 There will be cost implications if that doesn't happen. Cost implications are unknown at the moment.
- Commercial approach is that the suppliers and partners are engaged on fixed cost basis

3.11.4 Net Present Value / Cost Benefit Analysis

3.11.4.1 NPV Summary Table

N/A

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3.11.4.2 NPV Assumptions and Calculations

3.11.5 Additional Impacts

N/A

3.12 Statements of Support

3.12.1 Supporters

The supporters listed have aligned their part of the business to support the project.

Role	Individual's Name
Business Executive Sponsor	John Gilbert
Head of PDM	Tom Cunningham
Relationship Manager	Graham Pool
Program Delivery Manager	Lee Denny
IS Finance Management	Chip Benson
IS Regulatory	Dan DeMauro
DR&S	Elaine Wilson
Service Delivery	Brian Detota
Enterprise Architecture	Joe Clinchot

3.12.2 Reviewers

The reviewers have provided feedback on the content/language of the paper.

Function	Individual	Area
Regulatory	Zschokke, Peter	All
MALE III	Harbaugh, Mark	Electric - NY
Jurisdictional	Anand, Sonny	Electric - NE
Delegate(s)	Hill, Terron	FERC
	Brown, Laurie	Gas - NY
	Currie, John	Gas - NE
Procurement	Curran, Art	All

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4 Appendices

4.1 Sanction Request Breakdown by Project

N/A

4.2 Other Appendices

4.2.1 Project Cost Breakdown

Project Cost Breakdown							
Cost Category	sub-category	\$ (millions)	Name of Firm(s) providing				
	NG Resources	1.489					
	SDC Time & Materials						
Personnel	SDC Fixed-Price						
	All other personnel						
	TOTAL Personnel Costs	1.489					
Hardware	Purchase		100				
naiuwaie	Lease						
Software		0.129					
Risk Margin		0.488	Mile Out-				
Other		2.186					
	TOTAL Costs	4,291					

4.2.2 Benefitting Operating Companies

This project will benefit all the companies listed below.

Operating Company Name	Business Area	State
Niagara Mohawk Power Corp Electric Distr.	Electric Distribution	NY
Massachusetts Electric Company	Electric Distribution	MA
KeySpan Energy Delivery New York	Gas Distribution	NY
KeySpan Energy Delivery Long Island	Gas Distribution	NY
Boston Gas Company	Gas Distribution	MA
Narragansett Electric Company	Electric Distribution	RI
Niagara Mohawk Power Corp Transmission	Transmission	NY
Niagara Mohawk Power Corp Gas	Gas Distribution	NY
New England Power Company – Transmission	Transmission	MA, NH, RI, VT
KeySpan Generation LLC (PSA)	Generation	NY
Narragansett Gas Company	Gas Distribution	RI
Colonial Gas Company	Gas Distribution	MA

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Operating Company Name	Business Area	State
Narragansett Electric Company – Transmission	Transmission	RI
National Grid USA Parent	Parent	
Nantucket Electric Company	Electric Distribution	MA
NE Hydro - Trans Electric Co.	Inter Connector	MA, NH
New England Hydro Finance Company Inc.	Inter Connector	MA, NH
KeySpan Energy Development Corporation	Non-Regulated	NY
KeySpan Port Jefferson Energy Center	Generation	NY
New England Hydro - Trans Corp.	Inter Connector	MA, NH
KeySpan Services Inc.	Service Company	
KeySpan Glenwood Energy Center	Generation	NY
Massachusetts Electric Company – Transmission	Transmission	MA
NG LNG LP Regulated Entity	Gas Distribution	MA, NY, RI
Transgas Inc	Non-Regulated	NY
Keyspan Energy Trading Services	Other	NY
KeySpan Energy Corp.	Service Company	
New England Electric Trans Corp	Inter Connector	MA

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4.2.3 IS Ongoing Operational Costs

	mary A						
All figures in \$ millions	Yr. 1 17/18	Yr. 2 18/19	Yr. 3 19/20	Yr. 4 20/21	Yr. 5 21/22	Yr. 6+	Total
Forecast of RTB Impact		10/2009					161 11
RTB if Status Quo Continues	3.892	3.892	3.892	3.892	3.892	3.989	23.44
RTB if Project is Implemented	5.451	2.595	2.376	2.376	2.376	2.435	17.60
Net change in RTB	1.559	(1.297)	(1.516)	(1.516)	(1.516)	(1.553)	(5.838
Net Δ RTB funded by Plan(s)	-	-	•	-		-	
Net Δ RTB funded by Plan(s)	-	-1	•	7	=	- 7	
Variance to Plan	1.559	(1.297)	(1.516)	(1.516)	(1.516)	(1.553)	(5.838
Total RTB Costs - by Cost App.Sup SDC 1	Live III			N. P. T.	(1.516)	(1.553)	
Total RTB Costs - by Cost	Type (if			N. P. T.	(1.516)	(1.553)	0.24
Total RTB Costs - by Cost App.Sup SDC 1	Type (if		s Impler -	nented) -	(1.516)		0.24
Total RTB Costs - by Cost App.Sup SDC 1 App.Sup SDC 2	Type (if	Project i	s Impler -	nented) - -	-	-	0.24
Total RTB Costs - by Cost App.Sup SDC 1 App.Sup SDC 2 App.Sup other	Type (if 0.240	Project i - - -	s Impler - -	nented) - -			0.24
Total RTB Costs - by Cost App.Sup SDC 1 App.Sup SDC 2 App.Sup other SW maintenance	Type (if 0.240	Project i - - - - 0.117	s Impler - - - -	nented) - - -			0.24
Total RTB Costs - by Cost App.Sup SDC 1 App.Sup SDC 2 App.Sup other SW maintenance SaaS	Type (if 0.240	Project i	s Impler - - - - -	nented) - - - -		:	0.24
Total RTB Costs - by Cost App.Sup SDC 1 App.Sup SDC 2 App.Sup other SW maintenance SaaS HW support	Type (if 0.240 - - 3.121 -	Project i 0.117	s Impler	nented) - - - - -		-	0.24
Total RTB Costs - by Cost App.Sup SDC 1 App.Sup other SW maintenance SaaS HW support Other: IS	Type (if 0.240 - - 3.121 - - 2.089	Project i 0.117 - 2.478	s Impler - - - - - - 2.376	nented) 2.376	- - - - - 2.376	2.435	0.24 3.23

Note: U.S. Policy dictates that RTB Variance = forecasted Net Δ RTB - Net Δ RTB funded by Investment Plan

4.3 NPV Summary

N/A

4.4 Customer Outreach Plan

N/A

4.5 Migration scope for US

Following is the migration scope for US. Further assessment would be done to determine the metrics of in scope services.

Category	Service	Scope	Action
		Personal folders	Migrate
ICE	Email	Shared mailboxes	Migrate
Platform	Liliali	US Mailboxes	- Archive non-active Employee mailboxes

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			- Migrate active user mailboxes
		PST Archives	Assessment and recommendation on how to migrate user PST archives
		Legal Holds	Migrate legal holds and implement legal hold solution
		SMTP Relays	Continued operation of existing SMTP relays
	SharePoint 2010	Site collections	Retain Information architectureMigrate of all site collections
	Lync	All NG Users	Migrate to 'Skype For business' Continued hybrid operations
Legacy SharePoint	CNI Sites	Custom applications1	Migrate (Assumption) or redevelopment of all applications
ShareFolin	SP Sites	CNI Site collections2	Migrate
Custom App SharePoint 2013	Custom SharePoint solution		Potentially Migrate (if kept on premise) or Redevelopment

- 1 Full analysis not provided assume an analysis and redevelopment of each application either to SharePoint on Premise (hybrid) or redevelopment using the new app model
- 2 CNI Data may potentially remain on premise due to our security policies

Assess and propose delivery/migration strategy of the following services:

- Office 2010 upgrade to Office 2016/Pro-plus
- All other public shared drives
- Personal folders (if applicable) to Onedrive
- Legacy Sharepoint migration (2007/03)
- · Any part of the business that is run from offshore

Implementation of Office 365 will be phased as follows:

- 1. Core Online enabling online services (i.e Sharepoint Online) expected to be delivered early on to pilot users
- 2. Core Hybrid timescales to be determined as per business readiness plans
- 3. Deployment Phase timescales to be determined as per business readiness plans

Each phase will bring in more capabilities of Office 365 while offloading users from ICE.



Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: Data Visualisation Expansion





national	grid		Inv	estment Re	equest Sun	nmary - IS I	US F	ISCAL YEAR	2018	
INV ID:	460	6 Project Na	ame: Data Vi	sualisation Exp	pansion					
Program:	Grow	th Playbook Roadi	пар							
Sponsor:	Rory A	Abbazio		1	Γitle: <i>IT director</i>					
Relationship Mo	ınager: Graho	ım Pool		1	Γitle: Corporate	IS relationship mo	anager			
Prog Delivery Manager:	Tom C	`unningham		1	Fitle: Head of pr	ogram delivery (C	orporate IS)			
Paper Author:	Nicolo	Pennington / Stev	e Trezza	1	Γitle: IS Business	Consultant (Glob	al IS)			
IS Roadmap Cat	egory: Integ	ration Services		Ви	usiness Area: Co l	rporate IS	Portf	olio: IS for IS		
☐ In-Flight Proj	ect? Invest Classifica	Mediu	m Categ	ory: Policy Driven	ı	Primary Policy Dr	iver: Reliability	1	Region: US	5
✓ Growth Play!	oook Project?	Shaping Our	Future Project?	Energy E	fficiency Project?					
		ext for the project cross more use cas			ing requirements	for reporting, co	nfiguring and b	ouilding reports.		
Supports Nat	ional Grid in ful	filling its reporting	and data retent	ion regulatory ob	ligations.					
Improving eff	iciencies to red	business challenge, uce operational co how we use our re	sts is a constant	challenge. Provid	ling Data, Visuali	,				
Platform/Inte (real-time an	rface – enables	is in scope and who the capability to v nternally and exter dinary.	isualize behavio	rs and investigate						
		<i>fy any core progra</i> i equired for this pr		endencies, please	e include INVP nu	ımbers if known				
	Assumptions: o be analysed									
Indicative	Project Cos	ts by Fiscal Ye	ar							
(\$M)	Prior Years	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
СарЕх		1.000	1.800	0.000	0.000	0.000	0.000		0.000	2.800
ОрЕх		0.100	0.150	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Impact on RTB		0.400	0.640	0.640	0.640	0.640	0.640	0.640	0.640	4.880
Indicative	Project Cos	ts by Delivery	Phase							
(\$M)		Start-up		R & D		D & I		Closure	_	Total
СарЕх				1.000		1.800				2.800
ОрЕх		0.050		0.030		0.150		C	0.02	0.250

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FY18 - Investment Request Summaries - IRSs - Data Visualisation Expansion

Project Ber	nefits - Type I	only							
(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Туре І - СарЕх									0.000
Type I - OpEx									0.000
Revenue Generation									0.000

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. The impacts of this project on the Customer are based on a number of areas:

- Improves reliability and productivity
- Support Jurisdictional and business function initiatives
- Enables a better Customer Experience

Employees will be able to use an application with more functionality in a more intuitive manner. The Jurisdiction and business function will be able to utilize a more reliable and resilient application, that will help to provide customers with more options when interacting with the Company.

The project will provide productivity benefits and potential operational savings for the business areas that the tools are deployed to in two ways:

- through the removal of the manual effort currently deploted to create reports required
- · through improved access to data and improved reporting capabilities

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.250	-24.4%	732
CapEx Annual Savings		5.1%	0	CapEx Cost	2.800	-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	160.000 %	-22.5%	-2.025
Financial Control	Low	6.2%	0.062	Union/Labor Relations	does not apply	-9.8%	0
Soft Financial Benefits	High	3.8%	0.342	Dependencies	does not apply	-10.6%	0
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	does not apply	-6.6%	0
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	does not apply	-14.9%	0
Reliability	does not apply	10.9%	0				
Customer & Community Responsiveness	does not apply	5.3%	0				
Employee Satisfaction	High	4.6%	0.414				
Mitigates a Corporate Risk / Risk of not Doing	Medium=16 to 39	8.9%	0.267				
Jurisdictional Engagement	does not apply	8.2%	0				
	Benej	fit Score:	1.09		Cos	st Score:	-3.77

Overall Priority Score: -2.68

Investment Risk and Complexity

Project Risk Score:	39	Risk Score Description: Risk Impact = 5 and Risk Likelihood = 5
Project Complexity Score::	16	Project Complexity Score Description:

Key Risks Description: Provide detail on project risks & mitigation strategy:

Now that customers are demanding new services, without this investment in our underlying technology infrastructure, we cannot deliver these new strategic programs.

FY18 - Investment Request Summaries - IRSs - Data Visualisation Expansion

6/14/2017

IS Project Depen	dencies if you don't see a p	roject in the drop-down please c	ontact the Planning & Performance te	am. Benefiti	ng Operating Compar	iies: Check all that apply			
IS Projects: 4606 - Data	Visualisation Expansion			Select A	II Companies Clear All Co	ompanies			
1. Has a Downstream	dependency on IS Pro	oject; 4464 Data Visualisa	tion	☐ Select A Gen	III Gas Select All E	lectric Select All			
2. Has a	dependency on IS Pro	oject;		M National	ıl Grid USA Parent				
3. Has a	dependency on IS Pro	oject;		KeySpar	n Grid USA Parent n Energy Development Corpor n Services Inc.	ation			
4. Has a	dependency on IS Pro	oject;			n Services Inc. n Energy Corp				
5. Has a	dependency on IS Pro	oject;		KeySpar	n Energy Delivery New York n Energy Delivery Long Island				
6. Has a	dependency on IS Pro	oject;		KeySpar	KeySpan Generation LLC (PSA)KeySpan Glenwood Energy Center				
Business Initiativ	e Dependencies			KeySpar	n Port Jefferson Energy Center n Port Jefferson Energy Center n Energy Trading Svc LLC				
IS Projects: 4606 - Data					n Energy Trading SVC LLC Mohawk Power Corp- Electric	Distribution			
	dependency on Biz Ir	nitiative,		Niagara	Mohawk Power Corp - Gas				
1. Has a					Mohawk Power Corp - Transn husetts Electric Company	nission			
2. Has a	dependency on Biz Ir	itiative,			husetts Electric Company husetts Electric Company - Tra	nsmission			
2 1/22 2	dependency on Biz Ir	nitiative,		✓ Nantucl	ket Electric Company				
3. Has a					Gas Company				
4. Has a	dependency on Biz Ir	nitiativė,			I Gas Company Insett Gas Company				
					insett Gas Company insett Electric Company				
Project Relations	hips				insett Electric Company - Trans	smission			
☐ Minor Works	Project Relationship:				gland Power Company - Trans	mission			
					gland Hydro - Trans Corp gland Electric Trans Corp				
Related Projects:					i LP Regulated Entity				
Enabling IS Capa	bilities check all that ap	pply							
	nt Management (ECM)		☐ Enterpri						
	ntegration Services (CIS)			g and Analytics					
Hybrid Cloud			□ Network	ks					
Next Gen Workpl	ace								
Key Milestone Da	ates: Select the 1st, 15t	h or last day of the mont	:h						
Begin	Begin	Begin Development &	Begin						
Start-up March, 2017	Requirements & Deign	Implementation	User Acceptance Testing	Go Live	Project Completion March, 2018	Project Closure			
	o Police				•				
Business Resourc	e Estimates: # of Full	Time Equivalents							
Start-up 0	Requirements & Deign 0	Develop & Implement 0	Business Resources UAT 0	Go Live Readiness 0	Post Go Live 0	Support			
Resourcing Strategy:									
Attached Suppo	rting Documents								

FY18 - Investment Request Summaries - IRSs - Data Visualisation Expansion

Recommendation Sign-off						
Role	Name	Title	Date			
Business Project Sponsor	Rory Abbazio	IT director				
Business Relationship Manager	Graham Pool	IS Business Relationship Manager				
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager				
			national grid			

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FY18 - Investment Request Summaries - IRSs - US SAP: Business Warehouse (BW) Consolidation...

6/14/2017

Planning & Performance Management \rightarrow FY18 - Investment Request Summaries - IRSs: US SAP: Business Warehouse (BW) Consolidation to HANA Enterprise Cloud (HEC).





national	grid		Inve	estment Ro	equest Sur	mmary - IS	US F	ISCAL YEA	R 2018	
INV ID:	456	2 Project N	lame: US SAP	: Business Wa	rehouse (BW)	Consolidation	to HANA Ent	terprise Cloud	(HEC).	
Program:										
Sponsor:	Dones	en Hobbs			Title: VP US Sha	red Services				
Relationship M	anager: Joel S	emel			Title: Relationsh	nip Manager				
Prog Delivery Manager:	Samir	Parikh			Title: Director, F	Portfolio SAP Ente	erprise			
Paper Author:	Ella W	/eisbord			Title: Business (Consultant				
IS Roadmap Ca	tegory: Enter	prise SAP		В	Business Area: US	F,SS&C	Portfo	olio: Other		
☐ In-Flight Pro	ject? Invest Classifica	Medi	um <i>Categ</i>	ory: Policy Drive	n	Primary Policy D	Oriver: Reliability	′	Region: US	5
☐ Growth Play	book Project?	Shaping Ou	ır Future Project?	Energy E	Efficiency Project	?				
		ext for the project			lligence (BI) / Bu	siness Warehous	e (BW) to HANA	Enterprise Cloud	I (HEC).	
• Repo	support Strategy rting Platform C tenance Cost Re		livering	ocess the project	t addresses					
Project Scope	e: Explain what i	is in scope and wh	nat is not in scope	for the project						
• Deco	Success Enter Front Office (I Non Utility Bil Payroll - Nativ Employee Act Supply Chain Maximo - Nativ Storms - Nativ mmission BW /	CO) - Native HANA diling (NUB)- BW te HANA tions and Employe Management (SCI tive HANA te HANA	ee Master Data - I M) - Native HANA	Native HANA/BW						
Project Depe	endencies: Identi	fy any core progra	am or project dep	endencies, pleas	e include INVP n	umbers if known				
Basic Project	t Assumptions:									
Indicative	Project Cos	ts by Fiscal Y	ear							
(\$M)	Prior Years	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
CapEx		2.366								2.366
ОрЕх		0.810								0.810
Impact on RTB		0.011	0.043	0.043	0.043	0.043				0.183

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Indicative Project Costs by Delivery Phase Start-up R & D D & I Closure Total СарЕх 0.778 1.588 2.366 OpEx 0.318 0.333 .159 0.810 **Project Benefits - Type I only** (\$M) FY 2018 FY 2019 FY 2020 FY 2021 FY 2022 FY 2024 FY 2025 Total FY 2023 Type I - CapEx 0.000 Type I - OpEx 0.000 Revenue 0.000

Key Business Benefits:

Generation

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy.

Consolidate the reporting solutions onto a single platform to reduce BAU costs including infrastructure hosting and application support costs. Simplify the reporting solution for the business users. Increase cross functional reporting capabilities.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.810	-24.4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cost	2.366	-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	12.722 %	-22.5%	675
Financial Control	does not apply	6.2%	0	Union/Labor Relations	does not apply	-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Medium	-10.6%	-0.318
Regulatory Impact	Medium	11.2%	0.336	Elapse Time Duration	Low	-6.6%	-0.066
Process & Personal Safety	Low	19.4%	0.194	Change Management Effort	Low	-14.9%	-0.149
Reliability	High	10.9%	0.981				
Customer & Community Responsiveness	does not apply	5.3%	0				
Employee Satisfaction	Medium	4.6%	0.138				
Mitigates a Corporate Risk / Risk of not Doing	Low=1 to 15	8.9%	0.089				
Jurisdictional Engagement	High	8.2%	1				
	Bene	efit Score:	2.51		Co	st Score:	-4.41

Overall Priority Score:

Investment Risk and Complexity

Project Risk Score:	36	Risk Score Description: Based on financial impact (4) and likelihood (6)
Project Complexity Score::	17	Project Complexity Score Description: Please see attached complexity matrix

Key Risks Description: Provide detail on project risks & mitigation strategy:

IS Project Depe	ndencies if you don't see a p	oject in the drop-down please o	ontact the Planning & Performance t	eam. Benefitin	g Operating Compa	nies: Check all that apply
IS Projects: 4562 - US	SAP: Business Warehouse (I	BW) Consolidation to HA	NA Enterprise Cloud (HEC).	Select All	Companies Clear All Co	ompanies
1. Has a	dependency on IS Pro	oject;				
2. Has a	dependency on IS Pro	nject;		Select All Gen	Gas Select All E	Electric Select All
3. Has a	dependency on IS Pro	oject;		✓ National	Grid USA Parent	
4. Has a	dependency on IS Pro	oject;		KeySpan	Energy Development Corpo	ration
5. Has a	dependency on IS Pro	nject;		✓ KeySpan✓ KeySpan		
6. Has a	dependency on IS Pro	piect:		KeySpan	Energy Delivery New York	
or rius u	acpendency on 15 Th	yeary			Energy Delivery Long Island Generation LLC (PSA)	
Business Initiat	ive Dependencies			KeySpan	Glenwood Energy Center	
IS Projects: 4562 - US	SAP: Business Warehouse	BW) Consolidation to H	ANA Enterprise Cloud (HEC).		Port Jefferson Energy Cente	r
1. Has a	dependency on Biz Ir	itiative,			Energy Trading Svc LLC Nohawk Power Corp- Electri	c Distribution
1. Hus u	devendence of Die I	****		✓ Niagara N	Mohawk Power Corp - Gas	
2. Has a	dependency on Biz Ir	itiative,			Mohawk Power Corp - Transı	mission
3. Has a	dependency on Biz Ir	itiative,			usetts Electric Company usetts Electric Company - Tra	ansmission
	dependency on Biz Ir	itiative,		✓ Nantucke	t Electric Company	
4. Has a	, ,			✓ Boston G✓ Colonial G		
					sett Gas Company	
Project Relation				✓ Narragan	sett Electric Company	
☐ Minor Works	Project Relationship:				sett Electric Company - Tran	
Related Projects:					and Power Company - Trans and Hydro - Trans Corp	smission
					and Electric Trans Corp	
					P Regulated Entity	
Enabling IS Cap	abilities check all that ap	ply		'		
	tent Management (ECM)			rise Mobility		
	Integration Services (CIS)			ng and Analytics		
Hybrid Cloud			□ Networ	rks		
Next Gen Work	rplace					
Key Milestone I	Dates: Select the 1st, 15t	h or last day of the mon	th			
		Begin				
Begin Start-up	Begin Requirements & Deign	Development & Implementation	Begin User Acceptance Testing	Go Live	Project Completion	Project Closure
April, 2017	Requirements & Deign	implementation	Oser Acceptance resting		Project Completion	Froject Closure
April, 2017				March, 2018		
Business Resou	rce Estimates: # of Full	Time Equivalents				
Start-up 0	Requirements & Deign 0	Develop & Implement 0	Business Resources UAT 0	Go Live Readiness 0	Post Go Liv 0	
Resourcing Strategy:						
Attached Supp	orting Documents					
INVP4562_Complex	ity_Matrix.xlsx					

FY18 - Investment Request Summaries - IRSs - US SAP: Business Warehouse (BW) Consolidation...

Recommendation Sign-	off		
Role	Name	Title	Date
Business Project Sponsor	Doneen Hobbs	VP US Shared Services	
Business Relationship Manager	Joel Semel	IS Business Relationship Manager	
IS Program Delivery Manager	Samir Parikh	IS Program Delivery Manager	

Tags &

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MWORK and Netmotion Risk Avoidance

Start-up

0.007

CapEx

OpEx

Planning & Performance Management > FY18 - Investment Request Summaries - IRSs:





nationalgrid **Investment Request Summary - IS US FISCAL YEAR 2018** Project Name: MWORK and Netmotion Risk Avoidance INV ID: 4725 Program: Service Strategy Roadmap Sponsor: John Gilbert Title: Global Head IS Service Delivery, Global IS Relationship Manager: Graham Pool Title: IS Relationship Manager, Global IS Prog Delivery Head of Programme Delivery, Global IS Tom Cunningham Manager: Paper Author: Nicola Penninaton / Steve Trezza Title: Business Constant - Corporate IS IS Assurance IS Roadmap Category: Business Area: Corporate IS Portfolio: IS for IS Category: Policy Driven Primary Policy Driver: Reliability Region: US Invest ☐ In-Flight Project? Medium Classification: ✓ Growth Playbook Project? Shaping Our Future Project? Energy Efficiency Project? Project Description: The context for the project with background information Netmotion will be the strategic direction for the MWork application. It is used when mobile field workers move in and out of wireless coverage areas and roam between networks, the product maintains and secures their data connections in order to maximize worker productivity. This project will implement a new solution for MWork that replaces the current Birdstep product with Netmotion. Project Rationale: Highlight business challenge, capability or process the project addresses For MDSI users (Legacy Keyspan), they are currently on an old Netmotion network and a new Netmotion network. As new and replacement devices are deployed they are added to the new Netmotion network reducing the load on the old one. Once all of the old devices are replaced the old network will be de-commissioned. This will happen organically. Project Scope: Explain what is in scope and what is not in scope for the project This scope covers all the identified functionality for the core service to be upgraded or improved. Project Dependencies: Identify any core program or project dependencies, please include INVP numbers if known This project is to move the Mwork device (Legacy National Grid) from Birdstep to the New Netmotion network. It will require the separation of Mwork from Birdstep and additional Netmotion licenses and may even need a verizon capacity upgrade. Basic Project Assumptions: This investment addresses IS health and capability challenges while enabling National Grid's strategic business objectives **Indicative Project Costs by Fiscal Year** FY 2018 FY 2020 FY 2021 FY 2022 FY 2023 FY 2024 FY 2025 (\$M) Prior Years FY 2019 Total CapEx 0.0000.500 0.0000.000 0.000 0.000 0.000 0.000 0.500 ОрЕх 0.000 0.020 0.000 0.000 0.000 0.000 0.000 0.020 0.000 Impact on RTB 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 **Indicative Project Costs by Delivery Phase**

0.050

0.005

D & I

0.450

0.005

Closure

0.003

Total

0.500

0.020

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FY18 - Investment Request Summaries - IRSs - MWORK and Netmotion Risk Avoidance

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Total
0.000
0.000
0.000

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. The impacts of this program on the Customer are based on a number of areas:

- Improves reliability and productivity
- Better support for Jurisdictional and business function initiatives
- Enables a better Customer Experience

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weigh	t Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.020	-24.4%	·244
CapEx Annual Savings		5.1%	0	CapEx Cost	0.500	-11.2%	6 0
Revenue Generation (annual)		6.2%	0	RTB Efficiency	0.000	% -22.5%	6 0
Financial Control	Low	6.2%	0.062	Union/Labor Relations	does not appl	y -9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Medium	-10.6%	-0.318
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	Medium	-6.6%	-0.198
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Medium	-14.9%	-0.447
Reliability	Medium	10.9%	0.327				
Customer & Community Responsiveness	Low	5.3%	0.053				
Employee Satisfaction	Low	4.6%	0.046				
Mitigates a Corporate Risk / Risk of not Doing	Medium=16 to 39	8.9%	0.267				
Jurisdictional Engagement	High	8.2%	1				
	Benej	fit Score:	1.53			Cost Score	-1.54

		Benefit Score: 1.53	Cost Score: -1.54
		Overall Priority Score: -	0.012
Investment Risk	and Comple	xity	
Project Risk Score:	36	Risk Score Description: Reliability - 4, likelihood 6	
Project Complexity Score::	14	Project Complexity Score Description:	
		oject risks & mitigation strategy: services, without these Network Improvements in our underlying to	echnology infrastructure, we cannot deliver these new strategic
IS Project Depen	dencies if you d	on't see a project in the drop-down please contact the Planning & Performance team.	Benefiting Operating Companies: Check all that apply
IS Projects: 4725 - MWC	ORK and Netmoti	on Risk Avoidance	Select All Companies Clear All Companies
1. Has a	dependency	on IS Project;	☐ Select All Gas ☐ Select All Electric ☐ Select All Gen

FY18 - Investment Request Summaries - IRSs - MWORK and Netmotion Risk Avoidance

2. Has a de	ependency on IS Project;			
3. Has a de	ependency on IS Project;		National Grid USA ParentKeySpan Energy Development Corpor	ation
4. Has a de	ependency on IS Project;		KeySpan Services Inc.	
			KeySpan Energy CorpKeySpan Energy Delivery New York	
5. Has a de	ependency on IS Project;		KeySpan Energy Delivery Long Island	
6. Has a de	ependency on IS Project;		KeySpan Generation LLC (PSA)	
Bustones Intitiation Bus	and a star		KeySpan Glenwood Energy CenterKeySpan Port Jefferson Energy Center	
Business Initiative Dep			KeySpan Energy Trading Svc LLC	
IS Projects: 4725 - MWORK and	ependency on Biz Initiative,		Niagara Mohawk Power Corp- ElectricNiagara Mohawk Power Corp - Gas	Distribution
1. Has a	-,,,		Niagara Mohawk Power Corp - Gas Niagara Mohawk Power Corp - Transn	nission
2. Has a	ependency on Biz Initiative,		Massachusetts Electric CompanyMassachusetts Electric Company - Tra	
3. Has a	ependency on Biz Initiative,		✓ Nantucket Electric Company	nsmission
de	ependency on Biz Initiative,		Boston Gas CompanyColonial Gas Company	
4. Has a			Narragansett Gas Company	
Project Relationships			Narragansett Electric Company	
	roject Relationship:		Narragansett Electric Company - TransNew England Power Company - Trans	
Minor Works	oject neiddonsmp.		New England Hydro - Trans Corp	IIIISSIOII
Related Projects:			New England Electric Trans Corp	
			✓ NG LNG LP Regulated Entity	
Enabling IS Capabilitie				
Enterprise Content Mand		□ Enterprise	•	
Comprehensive Integrati	non Services (CIS)	Reporting o	and Analytics	
Next Gen Workplace		□ Networks		
— West dell Workplace				
Key Milestone Dates:	Select the 1st, 15th or last day of the m	onth		
Donin	Begin Begin Development &	Dania		
Begin Start-up Requii	Begin Development & rements & Deign Implementation	Begin User Acceptance Testing	Go Live Project Completion	Project Closure
April, 2018			March, 2019	
Business Resource Est	imates: # of Full Time Equivalents			
	rements & Deign Develop & Impleme		Go Live Readiness Post Go Live	Support
0	0 0	0	0 0	
Resourcing Strategy:				
Attached Supporting	Documents			
Recommendation Sign				I
Role	Name		Title	Date
Business Project Sponsor	John Gilbert		Global Head IS Service Delivery, Global IS	

Niagara Mohawk Power Corporation d/b/a National Grid Case No. 17-E-0238 and 17-G-0239 Attachment 6 to DPS 275 IS-4

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FY18 - Investment Request Summaries - IRSs - MWORK and Netmotion Risk Avoidance

Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			national grid

FY18 - Investment Request Summaries - IRSs - Improving End User Experience- Cloud based...



Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: Improving End User Experience- Cloud based DMZ Service Platform





INV ID:	grid		ilive	stillent kei	quest sum	mary - IS L	JS F	ISCAL YEAR	X 2018	
	4723	Project Na	me: <i>Improvin</i>	g End User Ex	perience- Clo	ud based DMZ	Service Pla	ıtform		
Program:	Service	Strategy Roadma	p							
Sponsor:	John Gi	ilbert		Ti	tle: Global Head	d IS Service Delive	ry, Global IS			
Relationship Mo	anager: Grahar	n Pool		Ti	tle: IS Relations	hip Manager, Glo	bal IS			
Prog Delivery Manager:	Тот Си	nningham		Ti	tle: Head of Pro	gramme Delivery	, Global IS			
Paper Author:	Nicola	Pennington / Steve	Trezza	Ti	tle: Business Co	nsItant - Corpora	te IS			
S Roadmap Ca	tegory: IS Assu	rance		Bus	siness Area: Cor	oorate IS	Portj	Folio: IS for IS		
In-Flight Pro	ject? Invest Classificat	Mediun	n <i>Categor</i>	y: Policy Driven	F	Primary Policy Dri	ver: Reliabilit	у	Region: US	
Growth Play	•	Shaping Our	Future Project?	Energy Eff	iciency Project?					
A DMZ or De these differe	militarized Zone int segments. This	xt for the project v is primarily used to s is established by move from a physi	separate the ne using a firewall a	twork into multipnd intrusion dete	ection and intrus	ion prevention sy	stems. This p	roject will establis	h a cloud based se	
New technol	ogies will emerge	usiness challenge, e across the netwo terface will meet r	rk creating new o	opportunities and	d threats.					
		ified functionality								
		or any core program or this project to sta		ndencies, please	include INVP nur	nbers if known				
	Assumptions: of this program o	n the Customer ar	e based on a nur	nber of areas:						
-		1 1 1 1 1 1		tiatives						
The impacts Impro Bette	oves reliability an r support for Juri les a better Custo	sdictional and busi	ness function ini	didives						
The impacts Impro Bette Enabl	r support for Juri les a better Custo	sdictional and busi		adives						
The impacts Impro Bette Enabl	r support for Juri les a better Custo	sdictional and busi mer Experience		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
The impacts Impresented Bette Enable Indicative (\$M)	r support for Juri les a better Custo Project Cost:	sdictional and busi mer Experience	ır		FY 2021 0.000	FY 2022 0.000	FY 2023		FY 2025	
The impacts Impro Bette Enabl	r support for Juri les a better Custo Project Cost:	s by Fiscal Yea	i r FY 2019	FY 2020				0.000		0.3
The impacts Impro Bette Enable Indicative (\$M) DEFE DEFE DEFE The impacts Provided in the impacts The impacts Provided in the impacts The	r support for Juri les a better Custo Project Cost:	s by Fiscal Year Pry 2018	FY 2019 0.300	FY 2020 0.000	0.000	0.000	0.000	0.000	0.000	0.3
Indicative (\$M) apEx page x	r support for Juri les a better Custo Project Cost: Prior Years	s by Fiscal Year Pry 2018 0.000 0.000	FY 2019 0.300 0.010 0.025	FY 2020 0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.3
Indicative (\$M) apEx pex Indicative (\$M)	Project Cost Project Cost Project Cost	s by Fiscal Yea FY 2018 0.000 0.000 s by Delivery	FY 2019 0.300 0.010 0.025	FY 2020 0.000 0.000 0.050	0.000	0.000 0.000 0.050	0.000	0.000 0.000 0.050	0.000 0.000 0.050	0.30 0.00 0.32
Indicative (\$M) apEx mpact on RTB	Project Cost Project Cost Project Cost	s by Fiscal Year Pry 2018 0.000 0.000	FY 2019 0.300 0.010 0.025	FY 2020 0.000 0.000	0.000	0.000	0.000	0.000	0.000 0.000 0.050	0.30

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FY18 - Investment Request Summaries - IRSs - Improving End User Experience- Cloud based...

6/14/2017

Project Ber	efits - Type I	only							
(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Type I - CapEx									0.000
Type I - OpEx									0.000
Revenue Generation									0.000

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. Here are benefits of this project:

- We will be able to successfully deliver new business development opportunities
- For the best interest of customers by the new opportunities, bound together by a clear purpose, vision and values.
- We adapt to the changing environment positively and play a leading role in shaping the future

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.010	-24.4%	244
CapEx Annual Savings		5.1%	0	CapEx Cost	0.300	-11.2%	0
Revenue Generation (annual)		6.2%	0	RTB Efficiency	116.667	% -22.5%	-2.025
Financial Control	Low	6.2%	0.062	Union/Labor Relations	Low	-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Low	-10.6%	-0.106
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	Medium	-6.6%	-0.198
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Low	-14.9%	-0.149
Reliability	Low	10.9%	0.109				
Customer & Community Responsiveness	Low	5.3%	0.053				
Employee Satisfaction	Low	4.6%	0.046				
Mitigates a Corporate Risk / Risk of not Doing	Medium=16 to 39	8.9%	0.267				
Jurisdictional Engagement	High	8.2%	1				
	Benej	fit Score:	1.31			Cost Score:	-2.93

Overall Priority Score: -1.619

Investment Risk	36	Risk Score Description: Reliability - 4, likelihood 6
Project Complexity Score::	14	Project Complexity Score Description:

IS Project Dependencies if you don't see a project in the drop-down please contact the Planning & Performance team.

Benefiting Operating Companies: Check all that apply

IS Projects: 4723 - Improving End User Experience- Cloud based DMZ Service Platform

☐ Select All Companies ☐ Clear All Companies

FY18 - Investment Request Summaries - IRSs - Improving End User Experience- Cloud based...

1. Has a dep	endency on IS Proje	ect;			Select All Gas	Select All El	ectric	Select All
2. Has a dep	endency on IS Proje	ect;		Ger	1			
3. Has a dep	pendency on IS Proje	ect;		✓	National Grid US	A Parent Development Corpor	ation	
4. Has a dep	pendency on IS Proje	ect;			KeySpan Service	s Inc.	20.011	
5. Has a dep	pendency on IS Proje	ect;			KeySpan Energy KeySpan Energy	Corp Delivery New York		
6. Has a de	pendency on IS Proje	ect;			KeySpan Energy KeySpan Genera	Delivery Long Island tion LLC (PSA)		
Business Initiative Dep	endencies			•	KeySpan Glenwo	ood Energy Center ferson Energy Center		
IS Projects: 4723 - Improving Er		Cloud based DNA7 Son	ica Dlatform		KeySpan Energy			
	endency on Biz Init		ice Flatioi III			Reference Corp- Electric	Distribu	ution
1. Has a	rendericy on Biz nine	idiive,				c Power Corp - Gas		
de	endency on Biz Init	iative,		•	Niagara Mohawl	c Power Corp - Transm	nission	
2. Has a	,				Massachusetts E			
дер 3. Has a	pendency on Biz Init	iative,			Massachusetts E Nantucket Electr	lectric Company - Tra	nsmissic	n
de	endency on Biz Init	iative,			Boston Gas Com			
4. Has a				•	Colonial Gas Cor	mpany		
				•	Narragansett Ga	s Company		
Project Relationships					Narragansett Ele			
Pro	ject Relationship:					ctric Company - Trans		
Minor Works	, ,.					wer Company - Transı	mission	
Related Projects:					New England Hy			
					New England Ele			
				•	NG LNG LP Regu	lated Entity		
Enabling IS Capabilities	check all that app	ly						
Enterprise Content Mana	gement (ECM)		☐ Enterprise	Mobility				
Comprehensive Integration			Reporting	,	rc ·			
✓ Hybrid Cloud	in services (els)		Networks					
Next Gen Workplace			□ Networks					
□ Next Gen Workplace								
Key Milestone Dates:	Select the 1st, 15th	or last day of the montl	า					
		Begin						
Begin	Begin	Development &	Begin					
Start-up Require	ements & Deign	Implementation	User Acceptance Testing	Go Liv	e Pro	ject Completion	Pro _.	ject Closure
April, 2018					Dec	cember, 2018		
Business Resource Esti	mates: # of Full T	ime Equivalents						
							_	
Start-up Require	ements & Deign 0	Develop & Implement 0	Business Resources UAT 0	Go Live Red	diness	Post Go Live 0	Support	t
	0	0	0			0		
Resourcing Strategy:								
Address of Commonstinuo								
Attached Supporting I	ocuments							
Recommendation Sign	-off							
Role	Name			Title			Date	
Business Project Sponsor	John Gilbert			Global He	ad IS Service Deliv	ery, Global IS		

Niagara Mohawk Power Corporation d/b/a National Grid Case No. 17-E-0238 and 17-G-0239 Attachment 6 to DPS 275 IS-4 Page 238 of 250

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FY18 - Investment Request Summaries - IRSs - Improving End User Experience- Cloud based...

Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			national grid



Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: Mobile Broadband PoC





INV ID: Program:	grid		IIIve	stment ked	luest Sum	mary - IS U	5 FI	SCAL YEAR	. 2010	
Program:	474	5 Project Na	me: Mobile E	roadband PoC						
Sponsor:	John G	ilbert		Tit	le: <i>Global Hea</i>	d IS Service Deliver	ry, Global IS			
Relationship M	anager: Graha	m Pool		Tit	le: IS Relations	hip Manager, Glob	nal IS			
Prog Delivery		unningham				gramme Delivery,				
Manager: Paper Author:	Nicola	Pennington / Stev	e Trezza	Tit	le: Business Co	nsultant - Corpora	te IS / Service S	Strategy		
S Roadmap Ca	tegory: Netwo	orks / Mobility		Busi	iness Area: Corr	oorate IS	Portfol	io: IS for IS		
In-Flight Pro	Invest	Low	Catego	y: Policy Driven	ı	Primary Policy Driv	er: Reliability		Region: US	
	Classifica book Project?	_	Future Project?		ciency Project?					
		ext for the project project is to trial th			e from Verizon 1	to provide WAN co	onnectivity to a	National Grid sit	e.	
		ousiness challenge, nt is essential for t								
		programs that wil								
		filling its reporting								
	endencies: Identij appropiate small	fy any core progran I site to test.	n or project depe	ndencies, please ii	nclude INVP nur.	nbers if known				
Basic Project Delivery of p Everyday mo	ore wireless only ors, equipment o	ss Networks with the devices are comin, controllers). The in	g to market that o	an allow National	Grid to deliver	serviices in a more	e effective and	efficient manner	(e.g. iPads, speci	ialized
Basic Project Delivery of p Everyday mo tablets, sens challenged t	pervasive Wireless only wors, equipment of a chieve.	devices are comin, controllers). The in	g to market that on the plementation of the pl	an allow National this project suppo	l Grid to deliver orts an environm	serviices in a more	e effective and ritical to improv	efficient manner ved efficienciees	(e. g. iPads, speci the businness wil	ialized I be
Basic Project Delivery of p Everyday me tablets, sens challenged t	pervasive Wireles ore wireless only sors, equipment o o achieve.	devices are comin, controllers). The in	g to market that on the plementation of the pl	an allow National this project suppo	FY 2021	serviices in a more nent that will be co	e effective and ritical to improve	efficient manner ved efficienciees	(e. g. iPads, speci the businness wil	ialized be Total
Basic Project Delivery of p Everyday mc tablets, sens challenged t Indicative (\$M)	pervasive Wireless only wors, equipment of a chieve.	devices are comin, controllers). The in	g to market that on the plementation of the pl	ean allow National this project supports of the projec	FY 2021	serviices in a more nent that will be contained from the contained fro	e effective and itical to improve	efficient manner ved efficienciees FY 2024 0.000	(e. g. iPads, speci the businness wil	ialized be Total 0.10
Basic Project Delivery of p Everyday mo tablets, sens challenged t Indicative (\$M) apEx	pervasive Wireless only wors, equipment of a chieve.	devices are comin, controllers). The in	g to market that on the plementation of the pl	an allow National this project suppo	FY 2021	serviices in a more nent that will be co	e effective and ritical to improve	efficient manner ved efficienciees	(e. g. iPads, speci the businness wil	Total 0.1
Basic Project Delivery of p Everyday mc tablets, sens challenged t Indicative (\$M) apEx pEx pact on RTB	pervasive Wirelessore wireless only tors, equipment of a achieve. Project Cost Prior Years	ts by Fiscal Ye FY 2018 0.000 0.000	ar FY 2019 0.100 0.015	FY 2020 0.000 0.000	FY 2021 0.000 0.000	FY 2022 0.000 0.000	FY 2023 0.000 0.000	efficient manner ved efficienciees FY 2024 0.000 0.000	(e. g. iPads, specithe businness will FY 2025 0.000 0.000	Total 0.10
Basic Project Delivery of p Everyday mo tablets, sens challenged t Indicative (\$M) apEx pEx Indicative	pervasive Wireless only ors, equipment of a chieve. Project Cost Prior Years Project Cost	ts by Fiscal Ye FY 2018 0.000 0.000 0.000 ts by Delivery	ar FY 2019 0.100 0.015	FY 2020 0.000 0.000	FY 2021 0.000 0.000	FY 2022 0.000 0.000	FY 2023 0.000 0.000	FY 2024 0.000 0.000	(e. g. iPads, specithe businness will FY 2025 0.000 0.000	Total 0.10 0.00
Basic Project Delivery of p Everyday mo tablets, sens challenged t Indicative (\$M) apEx ppEx mpact on RTB Indicative (\$M)	pervasive Wireless only ors, equipment of a chieve. Project Cost Prior Years Project Cost	ts by Fiscal Ye FY 2018 0.000 0.000	ar FY 2019 0.100 0.015	FY 2020 0.000 0.000 R & D	FY 2021 0.000 0.000	FY 2022 0.000 0.000 D & I	FY 2023 0.000 0.000	efficient manner ved efficienciees FY 2024 0.000 0.000	(e. g. iPads, specithe businness will FY 2025 0.000 0.000	Total 0.00 Total
Basic Project Delivery of p Everyday mo tablets, sens challenged t Indicative (SM) TapEx DepEx Indicative Indicative	pervasive Wireless only ors, equipment of a chieve. Project Cost Prior Years Project Cost	ts by Fiscal Ye FY 2018 0.000 0.000 0.000 ts by Delivery	ar FY 2019 0.100 0.015	FY 2020 0.000 0.000	FY 2021 0.000 0.000	FY 2022 0.000 0.000	FY 2023 0.000 0.000	FY 2024 0.000 0.000 Closure	(e. g. iPads, specithe businness will FY 2025 0.000 0.000	Total 0.1 0.0 0.0

FY18 - Investment Request Summaries - IRSs - Mobile Broadband PoC

Project Ben	efits - Type	I only										
(\$M)	FY 2018	FY 2	2019	FY 2020	FY.	2021	FY 2022	FY 2023	FY 2024	FY 2025	To	otal
Type I - CapEx												0.000
Туре І - ОрЕх												0.000
Revenue Generation												0.000
	, both financial o	ow? Explaii	n any Reg				ed. Provide a clea initiative aligns with			investment drive	rs – why d	'o we
Provide site W. Potentially pro Could be used Used an altern	vide higher acce to quickly imple	ess speed th ment a WA	an traditi N service	onal TDM circuits to a site that has		delays.						
Investment	Prioritizatio	on										
Benefits				Impact	Weight	Score	Cost			Impact	Weight	Score
On Fre Annual Court				,			On Ev Cook			·		
OpEx Annual Savi					10.3%	0	OpEx Cost			0.015	-24.4%	244
CapEx Annual Sav	-				5.1%	0	CapEx Cost			0.100	-11.2%	0
Revenue Generat	ion (annuai)		٨	acc not annly	6.2%	0	RTB Efficiency Union/Labor Re	lations	d	350.000 %	-22.5% -9.8%	-2.025 0
				oes not apply				lutions	u.	oes not apply		
Soft Financial Ber				oes not apply	3.8%	0	Dependencies			Low	-10.6%	-0.106
Regulatory Impac				oes not apply	11.2%	0	Elapse Time Dui			Low	-6.6%	-0.066
Process & Person	al Safety		Low		19.4%	0.194	Change Manage	ement Effort		Low	-14.9%	-0.149
Reliability				Medium	10.9%	0.327						
Customer & Com	munity Responsi	veness		Medium	5.3%	0.159						
Employee Satisfa	ction			Medium	4.6%	0.138						
Mitigates a Corpo	orate Risk / Risk	of not Doin	g Me	dium=16 to 39	8.9%	0.267						
Jurisdictional Eng	agement			High	8.2%	1						
				Benej	it Score:	1.82				Cost	t Score:	-2.70
					ď	Overall Pr	iority Score: -().879				
Investment	Risk and Co	mplexit	V									
Project Risk Score	:	ŀ	Risk Score	<i>Description:</i> - 4, likelihood 6								
Project Complexit Score::		14	Project Co	mplexity Score D	escription:							
Key Risks Description: Provide detail on project risks & mitigation strategy: Now that customers are demanding new services, without these Network Improvements in our underlying technology infrastructure, we cannot deliver these new strategic programs.												
IS Project D	ependencie	S if you don't	see a proiec	t in the drop-down pl	ease contact	the Planning	& Performance team.	Benefiti	ng Operating	Companies:	Check all tha	t apply
IS Projects: 4745			. , ,			8		1	Il Companies	-		
1. Has a		endency or	n IS Projec	t;				Select A		Select All Electric		elect All
	,		-					Gen				

FY18 - Investment Request Summaries - IRSs - Mobile Broadband PoC

2. Has a de	ependency on IS Project;			National Grid USA Parent	
3. Has a de	ependency on IS Project;			National Grid USA Parent KeySpan Energy Development Corpor	ration
4 1100 0				KeySpan Services Inc.	
4. Has a de	ependency on IS Project;			KeySpan Energy CorpKeySpan Energy Delivery New York	
5. Has a de	ependency on IS Project;				
6. Has a de	ependency on IS Project;			KeySpan Energy Delivery Long IslandKeySpan Generation LLC (PSA)	
				KeySpan Glenwood Energy Center	
Business Initiative Dep	pendencies			KeySpan Port Jefferson Energy Center	
IS Projects: 4745 - Mobile Broa	adband PoC			KeySpan Energy Trading Svc LLCNiagara Mohawk Power Corp- Electric	Distribution
1. Has a	ependency on Biz Initiative,		•	Niagara Mohawk Power Corp - Gas	
	ependency on Biz Initiative,			Niagara Mohawk Power Corp - Transr	nission
2. Has a	pendency on biz initiative,			Massachusetts Electric CompanyMassachusetts Electric Company - Tra	ınsmission
3. Has a	ependency on Biz Initiative,			Nantucket Electric Company	
	ependency on Biz Initiative,			Boston Gas Company	
4. Has a	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Colonial Gas Company Narragansett Gas Company	
				Narragansett Electric Company	
Project Relationships			•	Narragansett Electric Company - Tran	
Minor Works	roject Relationship:			New England Power Company - TransNew England Hydro - Trans Corp	mission
Related Projects:				New England Hydro - Trans Corp New England Electric Trans Corp	
				NG LNG LP Regulated Entity	
Enabling IS Capabilitie	S check all that apply				
☐ Enterprise Content Mand	agement (ECM)	✓ Enterprise	Mobility		
Comprehensive Integrati	ion Services (CIS)	\square Reporting α	and Analy	tics	
Hybrid Cloud		☐ Networks			
Next Gen Workplace					
Key Milestone Dates:	Select the 1st, 15th or last day of the n	nonth			
	Begin				
Begin Start-up Requir	Begin Development & rements & Deign Implementation	Begin User Acceptance Testing	Go L	ive Project Completion	Project Closure
April, 2018	implementation	oser receptance resumg	July, 20	,	rreject elesare
7,511,7 2010			54.77 20	7. Mg (35), 2010	
Business Resource Est	imates: # of Full Time Equivalents				
Start-up Requir	rements & Deign Develop & Impleme	ent Business Resources UAT	Go Live Re	eadiness Post Go Live	e Support
0	0 0	0	0		
Resourcing Strategy:					
Attached Compating	Decuments				
Attached Supporting	Documents				
Recommendation Sign	a-off				
Recommendation Sign			Title		Data
	Name			and IS Sangica Daliyany Clabel IS	Date
Business Project Sponsor	John Gilbert		ыораі Н	ead IS Service Delivery, Global IS	

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FY18 - Investment Request Summaries - IRSs - Mobile Broadband PoC

Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			national grid



Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: FY19





national	grid			Inve	estment R	equest Su	mmary - IS	US	FISCAL YEA	AR 2018	
NV ID:		4717	Project Na	ame: FY19 Ed	ge Projects						
rogram:	Se	ervice Stra	tegy Roadm	ар							
oonsor:	Jo	ohn Gilbert				Title: Global He	ead IS Service Deliv	very, Globa	I IS		
elationship M	anager: G	raham Pod	ol			Title: IS Relatio	nship Manager, G	lobal IS			
rog Delivery lanager:	To	om Cunnin	gham			Title: Head of I	Programme Delive	ry, Global I	S		
aper Author:	N	icola Penn	ington / Stev	e Trezza		Title: Business	Consltant - Corpor	ate IS			
Roadmap Ca	tegory: IS	S Assurance	e			Business Area: C	orporate IS		Portfolio: IS for IS		
In-Flight Pro	iect? Inves	st sification:	Mediu	m Catego	ory: Policy Drive	n	Primary Policy D	river: Relia	bility	Region: US	5
Growth Play	book Projec	t?	Shaping Our	Future Project?	Energy L	Efficiency Project	?				
As we use me	ore cloud ba	ased service	es that dicta				ty to manage this	impact on	National Grid. This in	ncludes services to	manage
									to protect the data		
We will within existing device			ominately pr	ovide end user	devices to emplo	oyees. Reacting	to the merging of	mobile and	l PC world's we will i	need to refresh an	d manage
This projects	will provide	e new serv	ices and futu	re projects to b		that will enable			Future. As custome to deliver these stra		ervices, such
				nt is not in scope our focus will cl		points and appli	cations to data and	d the need	to protect the data	regardless of when	e it resides.
					endencies, pleas		numbers if known FY18.				
Basic Project This multi-ye	,		ses IS health	and capability c	nallenges while	enabling Nationa	al Grid's strategic b	ousiness ob	jectives.		
مرينه مماني	Duainet (Cooto bu	Fiscal Vo								
ndicative					EV 2020	EV 2024	EV 2022	EV 202	2 EV 2024	FY 2025	Takal
(\$M)	Prior Yea	irs r	Y 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 202			Total
DEX			0.000	1.000	0.000	0.000			0.000		
Ex			0.000	0.700	0.000	0.000	0.000	C	0.000	0.000	0.70
pact on RTB			0.000	0.500	0.500	0.500	0.500	C	0.500	0.500	3.50
			D. II	D.							
ndicative	Project (Phase							
(\$M)		Start-	ир		R & D	1	D & I		Closu	re	Total
pEx					0.100		0.900)			1.00
Eχ											

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FY18 - Investment Request Summaries - IRSs - FY19 Edge Projects

		0.030		0.050		0.600		0.020	0.700
Project Ber	nefits - Type I	only							
(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Туре І - СарЕх									0.000
Type I - OpEx									0.000
Revenue Generation									0.000

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we $need\ to\ do\ something\ and\ why\ now?\ Explain\ any\ Regulatory\ considerations\ and\ how\ this\ initiative\ aligns\ with\ the\ US\ Business\ Strategy.$ The impacts of this project on the Customer are based on a number of areas:

- Improves reliability and productivity
- Support Jurisdictional and business function initiatives
- Enables a better Customer Experience

There is a risk of failure of unsupported platforms and the fact that many of these systems support key company operations. Thus, our ability to continue to provide safe and reliable service to our customers would be impacted if one of these systems were to fail.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact		Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.700		-24.4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cost	1.000		-11.2%	0
Revenue Generation (annual)		6.2%	0	RTB Efficiency	350.000	%	-22.5%	-2.025
Financial Control	Low	6.2%	0.062	Union/Labor Relations	Low		-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Medium		-10.6%	-0.318
Regulatory Impact	Low	11.2%	0.112	Elapse Time Duration	High		-6.6%	-0.594
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Medium		-14.9%	-0.447
Reliability	Medium	10.9%	0.327					
Customer & Community Responsiveness	Medium	5.3%	0.159					
Employee Satisfaction	Medium	4.6%	0.138					
Mitigates a Corporate Risk / Risk of not Doing	High= 40 or more	8.9%	0.801					
Jurisdictional Engagement	High	8.2%	1					
	Bene	fit Score:	2.38			Cost	t Score:	-6.01

Overall Priority Score: -3.639

Investment Risk and Complexity

		•
Project Risk Score:	41	Risk Score Description: Reliability - 5, likelihood 6
Project Complexity Score::	21	Project Complexity Score Description:

Key Risks Description: Provide detail on project risks & mitigation strategy:

There is a risk of failure of these unsupported platforms, as the fact that many of these systems support key company operations. Thus, our ability to continue to provide safe and reliable service would be impacted if one of these systems were to fail.

Now that customers are demanding new services, without this investment of upgrading our underlying technology infrastructure, we cannot deliver these new strategic programs.

IS Project Dependencies if you don't see a project in the drop-down please contact the Planning & Performance team.

Benefiting Operating Companies: Check all that apply

FY18 - Investment Request Summaries - IRSs - FY19 Edge Projects

IS Projects: 4717 - FY19 Edg	e Projects				Select Al.	l Companies 🔲 Clear All C	ompanies
1. Has a	dependency on IS Proj	ect;			Select All	I Gas Select All I	Electric Select All
2. Has a	dependency on IS Proj	ect;					
3. Has a	dependency on IS Proj	ect;			KeySpan	Grid USA Parent Energy Development Corpo	ration
4. Has a	dependency on IS Proj	ect;			, ,	Services Inc. Energy Corp	
5. Has a	dependency on IS Proj	ect;				Energy Delivery New York	
6. Has a	dependency on IS Proj	ect:				Energy Delivery Long Island Generation LLC (PSA)	
	,				KeySpan	Glenwood Energy Center	
Business Initiative I	Dependencies					Port Jefferson Energy Cente Energy Trading Svc LLC	r
IS Projects: 4717 - FY19 Ed	ge Projects					Mohawk Power Corp- Electr	ic Distribution
1. Has a	dependency on Biz Ini	tiative,			-	Mohawk Power Corp - Gas Mohawk Power Corp - Trans	
	dependency on Biz Ini	tiative,				vionawk Power Corp - Trans usetts Electric Company	mission
2. Has a						usetts Electric Company - Tr	ansmission
3. Has a	dependency on Biz Ini	tiative,				et Electric Company Gas Company	
4. Has a	dependency on Biz Ini	tiative,			Colonial	Gas Company	
77.703 0						nsett Gas Company nsett Electric Company	
Project Relationship	os					isett Electric Company isett Electric Company - Trar	nsmission
☐ Minor Works	Project Relationship:					land Power Company - Tran	smission
						land Hydro - Trans Corp land Electric Trans Corp	
Related Projects:						LP Regulated Entity	
- 11: 10.0 1:11							
Enabling IS Capabil		bly					
Enterprise Content N Comprehensive Integ			· ·	prise Mobilition	•		
Hybrid Cloud	ration services (Cis)		□ Netw		ulytics		
Next Gen Workplace							
Key Milestone Date	Select the 1st, 15th	or last day of the mont	h				
		Begin					
Begin Start-up Re	Begin quirements & Deign	Development & Implementation	Begin User Acceptance Testing	G	o Live	Project Completion	Project Closure
January, 2018						March, 2019	
Business Resource	Estimates: # of Full	Fime Equivalents					
Start-up Re	quirements & Deign 0	Develop & Implement 0	Business Resources UAT 0	Go Live	Readiness	Post Go Liv	
Resourcing Strategy:							
nesoureing strategy.							
Attached Supporti	ng Documents						
Attached Supporti	ing Documents						
Recommendation S	ign-off						
	-						

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FY18 - Investment Request Summaries - IRSs - FY19 Edge Projects

Role	Name	Title	Date
Business Project Sponsor	John Gilbert	Global Head IS Service Delivery, Global IS	
Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			national grid



Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: FY19 **Network Projects**





nationalgrid **Investment Request Summary - IS US FISCAL YEAR 2018** INV ID: 4718 Project Name: FY19 Network Projects Program: Service Strategy Roadmap John Gilbert Title: Global Head IS Service Delivery, Global IS Sponsor: Relationship Manager: Graham Pool Title: IS Relationship Manager, Global IS Prog Delivery Head of Programme Delivery, Global IS Tom Cunningham Manager. Paper Author: Nicola Penninaton / Steve Trezza Title: Business Constant - Corporate IS IS Assurance IS Roadmap Category: Portfolio: IS for IS Business Area: Corporate IS Category: Policy Driven Primary Policy Driver: Reliability Region: US Invest ☐ In-Flight Project? Medium Classification: ☐ Growth Playbook Project? ☐ Shaping Our Future Project? Energy Efficiency Project? Project Description: The context for the project with background information The hardware and software that make up the legacy network services is now experiencing asset health related issues, which have an operational and business risk of hardware/service failure, performance deterioration and potential of business service interruption. These projects not implemented in FY18 will address these issues. Project Rationale: Highlight business challenge, capability or process the project addresses To continue the effort to Keeps National Grid in the supported releases window, stable support for the smooth running of the National Grid businesses. A stable Network environment is essential for the smooth running of the National Grid businesses. To help support foundational programs that will enable or support the Utility of the Future. Supports National Grid in fulfilling its reporting and data retention regulatory obligations. Project Scope: Explain what is in scope and what is not in scope for the project This scope covers all the identified functionality for the core service to be upgraded or improved. Project Dependencies: Identify any core program or project dependencies, please include INVP numbers if known Project dependencies will be developed as the individual projects start up. Basic Project Assumptions: This multi-year investment addresses IS health and capability challenges while enabling National Grid's strategic business objectives. **Indicative Project Costs by Fiscal Year** (\$M) FY 2018 FY 2019 FY 2020 FY 2021 FY 2022 FY 2023 FY 2024 FY 2025 Total СарЕх 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 OpEx 0.025 0.025 0.000 0.000 0.000 0.000 0.000 0.050 0.000 Impact on RTB 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 **Indicative Project Costs by Delivery Phase** (\$M) Start-up R & D D & I Closure Total СарЕх 0.300 0.700 1 000 OpEx 0.010 0.010 0.020 .010 0.050

FY18 - Investment Request Summaries - IRSs - FY19 Network Projects

Project Benefits - Type I only											
(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total		
Туре I - СарЕх									0.000		
Type I - OpEx									0.000		
Revenue Generation									0.000		

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. The impacts of this program on the Customer are based on a number of areas:

- Improves reliability and productivity
- Better support for Jurisdictional and business function initiatives
- Enables a better Customer Experience

These Network Improvements will better help employees to use applications with more functionality in a more intuitive manner. The Jurisdiction and business function will be able to utilize a more reliable and resilient application, that will help to provide customers with more options when interacting with the Company.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score	
OpEx Annual Savings		10.3%	0	OpEx Cost	0.050	-24.4%	244	
CapEx Annual Savings		5.1%	0	CapEx Cost	1.000	-11.2%	0	
Revenue Generation (annual)		6.2%	0	RTB Efficiency	0.000	% -22.5%	0	
Financial Control	Low	6.2%	0.062	Union/Labor Relations	Low	-9.8%	0	
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Low	-10.6%	-0.106	
Regulatory Impact	Low	11.2%	0.112	Elapse Time Duration	High	-6.6%	-0.594	
Process & Personal Safety	Low	19.4%	0.194	Change Management Effort	Medium	-14.9%	-0.447	
Reliability	Medium	10.9%	0.327					
Customer & Community Responsiveness	Medium	5.3%	0.159					
Employee Satisfaction	Medium	4.6%	0.138					
Mitigates a Corporate Risk / Risk of not Doing	High= 40 or more	8.9%	0.801					
Jurisdictional Engagement	High	8.2%	1					
	Benej	fit Score:	2.57			Cost Score:	-1.83	
Overall Priority Score: 0.744								

41	Risk Score Description: Risk Impact = 5 and Risk Likelihood = 6	
16	Project Complexity Score Description:	
		Risk Impact = 5 and Risk Likelihood = 6 Project Complexity Score Description:

Key Risks Description: Provide detail on project risks & mitigation strategy:

Now that customers are demanding new services, without these Network Improvements in our underlying technology infrastructure, we cannot deliver these new strategic programs.

IS Project Depen	dencies if you don't see a project in the drop-down please contact the Planning & Performance team.	Benefiting Operating Companies: Check all that apply
IS Projects: 4718 - FY19	Network Projects	Select All Companies Clear All Companies
1. Has a	dependency on IS Project;	

FY18 - Investment Request Summaries - IRSs - FY19 Network Projects

					Select All Gas Select All El	lectric 🖳 Select All
2. Has a de	pendency on IS Projec	ct;		Gen		
3. Has a de	pendency on IS Projec	ct;			National Grid USA Parent	
4. Has a de	pendency on IS Projec	rt:			KeySpan Energy Development Corpora KeySpan Services Inc.	ation
	pendency on IS Projec			•	KeySpan Energy Corp	
					KeySpan Energy Delivery New York	
6. Has a de	pendency on IS Projec	ct;			KeySpan Energy Delivery Long Island KeySpan Generation LLC (PSA)	
Desciones Initiative Des				•	KeySpan Glenwood Energy Center	
Business Initiative Dep					KeySpan Port Jefferson Energy Center	
IS Projects: 4718 - FY19 Netwo	rk Projects pendency on Biz Initia	-40.0			KeySpan Energy Trading Svc LLC Niagara Mohawk Power Corp- Electric	Distribution
1. Has a	репаенсу оп віз іпіца	nive,			Niagara Mohawk Power Corp - Gas	Distribution
de, 2. Has a	pendency on Biz Initio	itive,			Niagara Mohawk Power Corp - Transn	nission
	and an array Distriction	-4.			Massachusetts Electric Company Massachusetts Electric Company - Tra	
3. Has a	pendency on Biz Initio	nive,			Nantucket Electric Company	HSHIISSIOH
de, 4. Has a	pendency on Biz Initio	itive,		•	Boston Gas Company	
					Colonial Gas Company Narragansett Gas Company	
Project Relationships					Narragansett Gas Company Narragansett Electric Company	
	oject Relationship:				Narragansett Electric Company - Trans	smission
Minor Works	ојест негастопатр.				New England Power Company - Transi	mission
Related Projects:					New England Hydro - Trans Corp New England Electric Trans Corp	
					NG LNG LP Regulated Entity	
Enabling IS Capabilitie	S check all that apply	,		'		
☐ Enterprise Content Mana		<u>'</u>	☐ Enterprise	Mobility		
Comprehensive Integration			Reporting of		rs	
Hybrid Cloud	(5.5)		Networks	,		
Next Gen Workplace						
Key Milestone Dates:	Calantah a dat debah	a lank day of the consent				
key Milestone Dates.	Select the 1st, 1stn o	,	1			
Begin Start-up Requir.	Begin ements & Deign	Begin Development & Implementation	Begin User Acceptance Testing	Go Liv	e Project Completion	Project Closure
·		·				•
Business Resource Esti	imates: # of Full Tir	me Equivalents				
Start-up Require	ements & Deign D	evelop & Implement	Business Resources UAT	Go Live Rea	diness Post Go Live	: Support
0	0	0	0	0	0	
Resourcing Strategy:						
Autochood Commonstine	Da suura austa					
Attached Supporting	Documents					
Barrer Lat. 51	- 66					
Recommendation Sign						Ī
Role	Name			Title		Date
Business Project Sponsor	John Gilbert			Global Hea	ad IS Service Delivery, Global IS	

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FY18 - Investment Request Summaries - IRSs - FY19 Network Projects

Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			national grid

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national grid **Investment Request Summary - IS US FISCAL YEAR 2018** INV ID: 4711 Project Name: Digital Asset Management (DAM) Program: Service Strategy Roadmap Sponsor: John Gilbert Title: Global Head IS Service Delivery, Global IS Relationship Manager: Graham Pool Title: 15 Relationship Manager, Global 15 Prog Delivery Tom Cunningham Title- Head of Programme Delivery, Global IS Manager: Paper Author: Nicola Pennington / Steve Trezza Title: Business Consitant - Corporate IS IS Roadmap Category IS Assurance Business Area: Corporate IS Portfolia: IS for IS Category: Policy Driven Primary Policy Driver: Reliability Region: US In-Flight Project? Medium Growth Playbook Project? Shaping Our Future Project? Energy Efficiency Project? Project Description: The context for the project with background information This project will implement a strategic Digital Asset Management (DAM) business process solution for organizing, storing and retrieving media in a cost-effective manner Project Rationale: Highlight business challenge, capability or process the project addresses To continue the effort to Keeps National Grid in the supported releases window, stable support for the smooth running of the National Grid businesses. To help support foundational programs that will enable or support the Utility of the Future. Supports National Grid in fulfilling its reporting and data retention regulatory obligations. Project Scope: Explain what is in scope and what is not in scope for the project Media assets include photos, music, videos, logos, documents, spreadsheets and other multimedia content Project Dependencies: Identify any core program or project dependencies, please include INVP numbers if known DAM involves the creation of an archived infrastructure to preserve and manage digital assets and a search functionality that allows end users to easily identify, locate and retrieve an asset. Basic Project Assumptions: This investment addresses IS health and capability challenges while enabling National Grid's strategic business objectives, **Indicative Project Costs by Fiscal Year** (SM) **Prior Years** FY 2018 FY 2019 FY 2020 FY 2021 FY 2022 FY 2023 FY 2024 FY 2025 Total CapEx 0.500 0.000 0.000 0.000 0.000 0.000 0.500 ОрЕх 0.000 0.030 0.000 0.000 0.000 0.000 0.000 0.000 0.030 Impact on RTB 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 **Indicative Project Costs by Delivery Phase** Start-up R&D D&1 Closure CopEx 0.050 0.450 0.500 OpEx 0.000 0.020 0.000 0.010 0.030

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ey Business Benefits: escribe benefits, both eed to do something a enefits of a DAM solut	nd why now? ion are that it	Explain an allows acc	y Regulatory consider ess to digital media a	rations and nytime, fas	f how this i	initiative aligns with	the US Business	Strategy.	e investment	drivers – why	do we
e Impacts of this prog	ram on the Cu	stomer ar	e based on a number	of areas:							
 Improves reliable Better support for Enables a better 	or Jurisdictiona	l and busi	ness function initiativ	'es							
Investment Prio	ritization										
enefits			Impact	Weight	Score	Cost			Impact	Weight	Score
Ex Annual Savings				10.3%	0	OpEx Cost			0.030	-24,4%	244
pEx Annual Savings				5.1%	0	CapEx Cost			0.500	-11.2%	0
venue Generation (an	nual)			6.2%	0	RTB Efficiency			0.000	% -22.5%	0
ancial Control			does not apply	6.2%	0	Union/Labor Rel	ations		Low	-9.8%	0
ft Financial Benefits			does not apply	3.8%	0	Dependencies			Low	-10.6%	-0.106
gulatory Impact			does not apply	11.2%	0	Elapse Time Duri	ation		Medium	-6.6%	-0.198
ocess & Personal Safe	ty		does not apply	19.4%	0	Change Manage	ment Effort		Low	-14.9%	-0.149
eliability			Low	10.9%	0.109	- D					
ıstomer & Community	Responsivene:	s	Low	5.3%	0.053						
nplayee Satisfaction			Low	4.6%	0.046						
itigates a Corporate R	isk / Risk of no	t Doing	Medium=16 to 39	8.9%	0.267						
risdictional Engageme	nt		High	8.2%	1	10 X 10 10 10 10 10 10 10 10 10 10 10 10 10					
				fit Score:	1.21					Cost Score:	-1.13
			Derit.	5207						COST SCORE	-1.13
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nvestment Risk	and Comp	lexity									
oject Risk Score:	36		Score Description: bility - 4, llkelihood 6				<u></u>				
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ore::	14										
Risks Description: Pr											
thout DAM we will lo	e the ability to	help emp	oloyees use applications that could have help	ns with m	ore functio	nality in a more into	uitive manner, Th	ne Jurisdiction and	d business fu	nctions will no	t be able

IS Project Dependencies If you don't see a project in the drop-down please contact the Planning & Performance team.

dependency on 15 Project;

IS Projects: 4711 - Digital Asset Management (DAM)

1. Has a

Benefiting Operating Companies: Check all that apply

Select All Electric

5elect All Companies Clear All Companies

Select All Gas

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I .				1 west		,
2. Has a dep	endency on IS Pro	oject;		St neverted to	4 Paris -	
3. Has a dep	endency on IS Pro	oject;		National Grid US KeySpan Energy	A Parent Development Corporatio	on .
44		90 00		KeySpan Services	s Inc.	
4. Has a dep	endency on IS Pro	oject;		KeySpan Energy		
5. Has a depo	endency on IS Pro	pject;		KeySpan Energy KeySpan Energy		
6. Has a depo	endency on IS Pro	oject;		KeySpan General		
				KeySpan Glenwo	od Energy Center	
Business Initiative Depe	ndencies				ferson Energy Center	
IS Projects: 4711 - Digital Asset N	Aanagement (DA	iM)		KeySpan Energy 1	Trading Svc LLC : Power Corp- Electric Di:	stribution
1. Has a	endency on Biz In	Itlative,		Niagara Mohawk		31710011017
		let at			Power Corp - Transmiss	ion
2. Has a	endency on Biz In	iaaave,		Massachusetts El		
dept	endency on Biz In	itiative,		Massachusetts El	ectric Company - Transn	nission
3. Has a				Boston Gas Comp		
4. Has a	endency on Biz In	itiative,		Colonial Gas Com		
				Narragansett Gas		
Project Relationships				Macragansett Elec	ctric Company ctric Company - Transmis	eelan
Proli	ect Relationship:				ctric Company - Transmis ver Company - Transmis:	
Minor Works				Mew England Hyd		
Related Projects:				New England Electric	ctric Trans Corp	
				NG LNG LP Regul	ated Entity	
Enabling IS Capabilities	check all that ap	ply		J		
Enterprise Content Manage	ement (ECM)		Enterpris	e Mobility		
Comprehensive Integration	Services (CIS)		Reporting	and Analytics		
Hybrid Cloud			☐ Networks	5		
Next Gen Workplace						
Van Milestone Detect of	-1	to a 15 and a section of the section of				
Key Milestone Dates: so	Hect the 1st, 1st		n			
Begin	Begin	Begin Development &	Begin			
Start-up Requirer	nents & Deign	Implementation	User Acceptance Testing	Go Live Proj	ect Completion	Project Closure
January, 2018				M	arch, 2019	
Business Resource Estin	nates: # of Full	Time Equivalents				
Start-up Requiren	nents & Deign	Develop & Implement	Business Resources UAT	Go Live Readiness	Post Go Live Su	pport
О	0	0	0	o	0	
Resourcing Strategy:						
Attached Supporting D	ocuments					
Recommendation Sign-	off					
Role	Name			Title	Da	ite
Business Broject Coopens	Inha Gilhert			Global Head IS Service Delive		T.

Niagara Mohawk Power Corporation d/b/a National Grid Case No. 17-E-0238 and 17-G-0239 Attachment 7 to DPS 275 IS-4

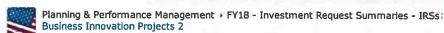
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Business Relationship Manager | Graham Pool | IS Business Relationship Manager |
IS Program Delivery Manager | Tom Cunningham | IS Program Delivery Manager |
Inational grid

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144.41										
(\$M)	Prior Years	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
СарЕх	-1-63	0.000	3,369	3.973	4.491	0.000	0.000	0.000	0.000	11.833
ОрЕх	342.073-70	0.000	0.100	0.100	0.100	0.000	0.000	0.000	0.000	0.300
Impact on RTB		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Indicative (SM)	10%	s by Delivery tart-up	Phase	R&D		D&I		Closure		Total
СарЕх			11 1000	2,000		9.833			100	11.833
OpEx		0.020		0.040		0.220				
Opex		0.020		0.040	PULLS HERE	0.230		0.0	010	0.300
	nefits - Type			0.040	STATE OF S	0.230		0.0	010	0.300
	nefits - Type		FY 2020						FY 2025	0.300
Project Be		I only	FY 2020							
Project Be		I only	FY 2020				2023 F			Total

Kev Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & contise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy.

The Impacts of this program on the Customer are based on a number of areas:

- · Increase business and enterprise service performance and availability
- Support Jurisdictional and business function initiatives
- Enable Customer Experience Transformation

Indicative Project Costs by Fiscal Year

Increased bandwidth and resilience - Delivery of software defined Wide Area Network technnlogy will allow IS to deliver hilgh bandwidth business class service through low cost commodity broadband internet services. In combination with cloud based security tools, this technology will support high speed Internet web browsing and use of high bandwidth cloud services even from the smallest locations. The tangible benefits that the user will experiencee is faster PC start up times, fast file transfers, more responsive applications, and access to bandwidth intensive Internet and cloud based services like, YouTube, WebEx, and Office 365.

Access anywhere from any device — Delivery of pervasive Wireless Networks with the capacity to support a multitude of devices will be key to supporting a flexible and mobile field worker or customer agent. Everyday more wireless only devices are coming to market that can allow National Grid to deliver services in a more effective and efficient manner (e. g. | Plads, specialized tablets, sensors, equipment controllers). The implementation of secure wireless networks that suppoort this environment will be critical to improved efficienciess the business will be challenged to achieve.

Unified Communications – As we move to a more mobile world with people working away from the traditional office, it will be critical to have communications systems in place that ensure clear, consistent, and more personal communications between all parties. This will be achieved through use of a consistent set of easy to use communication tools that provide voice, video, and text communications between parties both within and outside the company. In addition, these tools will take advantage of the capabilities of the new device being used to relay real-time information in the form of pictures, videos, and telemeetry to staff and systems that can proocess the information and provide informed feedback to the remote staff.

Virtual Desktop - If we don't augment the current service the Businesss cannot grow, as planned, new development needs due to physical constraints of the existing offering. In addition, the current architecture is not a sustainable service, presents a single point of failure and high risk from internal attacks. The business should expect longer development times when existing resources begin to fail or current development tools need refresh.

Cloud - The business may lose competitive advantages as they will be limited to existing infrastructure options which lack current-state capabilities, are costly and take a long time to provision relative to hyper scale offerings. While not solely a financial advantage at first, there will be economies at scale. Developer productivity will be constrained in the current environment; agile project approaches will simply not work. IS will be silently encouraging shadow IT start ups via lack of an internal offering and current speed to deliver, which has compliance and other risks.

Applications - Employees and customers will be able to use applications with more functionality in a more intuitive manner through multiple devices. The Jurisdictions and business functions will be able utilize more reliable and resilient applications and leverage their full capability Application upgrades will enable CET to provide customers with more options to interact with the Company

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.300	-24.4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cost	11.833	-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	0.000 %	-22.5%	0
Financial Control	does not apply	6.2%	0	Union/Labor Relations	Low	-9.8%	0
Soft Financial Benefits	does not apply	3.8%	0	Dependencies	Low	-10.6%	-0.106
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	High	-6.6%	-0.594
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Medium	-14.9%	-0.447

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[Attachi			
Reliability		Medium	10.9%	0.327				
Customer & Community R	Responsiveness	Low	5.3%	0.053				
Employee Satisfaction		Low	4.6%	0.046				
Mitigates a Corporate Ris	k / Risk of not D	oing High= 40 or more	8.9%	0.801				
Jurisdictional Engagemen	t	High	8.2%	1				
		Bene	fit Score:	1.97	Cost Score: -4.45			
			Ov	erall Priority Score:	-2.484			
Investment Risk a	ind Comple	кity			Amenia de la la compania de la comp			
Project Risk Score:		Risk Score Description:						
	41	Risk Impact = 5 and Risk Li	kelinood = 6					
Project Complexity Score::	16	Project Complexity Score L	escription					
Key Risks Description: Proj	vide detail on no	oject risks & mitigation strat	PAN-					
key hisks bescription, i ro	viue delan an pr	oject risks a miligation strut	99					
IS Deciset Depart	landas				Panaliting Operating Companies			
		on't see a project in the drop-down p	lease contact the	Planning & Performance				
S Projects: 4708 - Busine	ss innovation P	rojetts 2			Select All Companies Clear All Companies Select All Gas Select All Electric Select All			
l. Has a	dependency	on IS Project;			Gen			
2. Has a	dependency	on IS Project;			National Grid USA Parent			
3. Hos a	dependency	on IS Project;			KeySpan Energy Development Corporation			
t. Has a	denendence	on IS Project;			KeySpan Services Inc.			
. 1163 6	оерениенсу	an is rioject,			 KeySpan Energy Corp KeySpan Energy Delivery New York 			
5. Has a	dependency	on IS Project;			KeySpan Energy Delivery Long Island			
5. Has a	dependency	on IS Project;			KeySpan Generation LLC (PSA)			
					KeySpan Glenwood Energy Center			
Business Initiative	e Dependen	cies			KeySpan Port Jefferson Energy Center KeySpan Energy Trading Svc LLC			
S Projects: 4708 - Busine	ess Innovation P	Projects 2			Niagara Mohawk Power Corp- Electric Distribution			
1 11	dependency	on Biz Initiative,			Niagara Mohawk Power Corp - Gas			
l. Has a					Miagara Mohawk Power Corp - Transmission			
?. Has a	dependency	on Biz Initiative,			 Massachusetts Electric Company Massachusetts Electric Company - Transmission 			
	dependency	on Biz Initiative,			Mantucket Electric Company			
3. Has a					Boston Gas Company			
l. Has a	dependency	on Biz Initiative,			Colonial Gas Company			
					Narragansett Gas Company			
Droinet Balatiansk	nine				 Narragansett Electric Company Narragansett Electric Company - Transmission 			
Project Relationsh		tionship			New England Power Company - Transmission New England Power Company - Transmission			
Minor Warks	Project Rela	сынр:			New England Hydro - Trans Corp			
Related Projects					New England Electric Trans Corp			
					S NG LNG LP Regulated Entity			
Enabling IS Capab	ilities -tt-	Il that anni-						
				1973 -				
Enterprise Content	: Management (:	ECM)		Enterp	prise Mobility			

Niagara Mohawk Power Corporation d/b/a National Grid Case No. 17-E-0238 and 17-G-0239 Attachment 7 to DPS 275 IS-4

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	Integration Services (CIS)		Reportin	ng and Analytics		
Hybrid Cloud			□ Networ	ks		
Next Gen Work	place					
Key Milestone [Dates: Select the 1st, 15	th or last day of the mont	h			
		Begin				
Begin Start-up	Begin Requirements & Deign	Development & Implementation	Begin User Acceptance Testing	Go Live	Project Completion	Project Closure
April, 2019					March, 2021	
usiness Resou	rce Estimates: # of Ful	l Time Equivalents				
Start-up	Requirements & Deign	Develop & Implement	Business Resources UAT	Go Live Readiness	Post Go Li	ve Support
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Attached Supp	orting Documents					
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decommendatio	Name	. 11100 - 1110 - 22		Title		Date
Recommendation	Name			Title Global Head IS Service	ie Delivery, Global IS	Date
decommendatio	Name or John Gilbert	er (December 1990)				Date

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Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: Business Innovation Projects 3



Tags &

national grid	- Harrison - Inches		Investment			
IV ID:	4728	Project Name:	Business Innovati	on Projects 3		
rogram:						
oonsor:	Iohn Gilbert			Title: Global Head IS Service Deliver	ry, Global 15	
lationship Manager:	Graham Pool			Title: IS Relationship Manager, Glob	bal IS	
og Delivery anager:	Tom Cunning	ham		Title: Head of Programme Delivery,	, Global IS	
pper Author:	Nicola Pennir	gton / Steve Trez	ta	Title: Business Consitant - Corporat	te IS	
Roadmap Category:	IS Assurance			Business Area: Corporate IS	Partfolia: Gla	obal F, SS & C
	Invest Classification:	Medium	Category: Policy D	Primary Policy Driv	ver: Reliability	Region: US
Growth Playbook Pri	oject? S	haping Our Futur	e Project?	rgy Efficiency Project?		
which have custome Big Data Anal Data Cleansir Data Visualiz Process and v CRM and Saa CIS system up Rate engine U Call center ca	r, brand an doos lytics — Setup Da lag for reporting ation and Online workflow autom S capability for lograde Pilots Jpgrades lpability enhanc	t implications. The ita Lake and come and Data Standar interactive dash ation with robott future Customer ements for chat,	e program includes the pany wide analytics cands compliance — Enab- boards for quick decisics experience program automated agents, mu	pability le BMS Standards	ons. The program will	also reduce the risk of system failure
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FY18 - Investment Request Summaries - IRSs - Business Innovation Projects 3

(SM)	Prior Years	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
CapEx	:	0.000	3,369	3.973	4.491	0.000	0.000	0.000	0.000	11.833
ОрЕх		0.000	0.100	0.100	0.100	0.000	0.000	0.000	0.000	0.300
Impact on RTB		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Indicative Project Costs by Delivery Phase

(SM)	Start-up	R&D	D&1	Closure	Total
СарЕх	CONTRACTOR OF THE PARTY OF	2,000	9.833		11,833
ОрЕх	0.010	0.040	0.240	0.010	0.300

Project Benefits - Type I only

(SM)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Type I - CapEx									0.000
Type I - OpEx									0.000
Revenue Generation									0.000

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers - why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. The impacts of this program on the Customer are based on a number of areas:

- Increase business and enterprise service performance and availability
- Support Jurisdictional and business function initiatives
- Enable Customer Experience Transformation

Increased bandwidth and resilience - Delivery of software defined Wide Area Network technology will allow IS to deliver high bandwidth business class service through low cost commmodity broadband internet services. In combination witth cloud based security tools, this teechnology will support high speed Internet web browsing and use of high bandwidth cloud services even from the smallest locations. The tangible benefits that the user will experiencee is faster PC start up times, fast file transfers, more responsive applications, and access to bandwidth intensive Internet and cloud based sservices like, YouTube, WebEx, andd Office 365.

Access anywhere from any device - Delivery of pervasive Wireless Networks with the capacity to support a multitude of devices will be key to supporting a flexible and mobile field worker or customer agent. Everyday more wireless only devices are coming to market that can allow National Grid to deliver services in a more effective and efficient manner (e.g., Pads, specialized tablets, sensors, equipment controllers). The implementation of secure wireless networks that suppoort this environment will be critical to improved efficienciees the businness will be challenged to achieve.

Unified Communications - As we move to a more mobile world with people working away from the traditional office, it will be critical to have communications systems in place that ensure clear, consistent, and more personal communications between all parties. This will be achieved through use of a consistent set of easy to use communication tools that provide voice, video, and text communications between parties both within and outside the company. In addition, these tools will take advantage of the capabilities of the new device being used to relay real-time information in the form of pictures, videos, and telemeetry to staff and systems that can process the information and provide informed feedbaack to the remote staff.

Virtual Desktop - If we don't augment the current service the Businesss cannot grow, as planned, new development needs due to physical constraints of the existing offering. In addition, the current architecture is not a sustainable service, presents a single point of failure and high risk from internal attacks. The business should expect longer development times when existing resources begin to fail or current development tools need refresh.

Cloud - The business may lose commpetitive advantages as they will be limited to existing infrastructurre options which lack current-state capabilities, are costly and take a long time to provision relative to hyper scale offerings. While not solely a financial advantage at first, there will be economies at scale. Developer productivity will be constrained in the current environment; agile project approaches will simply not work. IS will be silently encouraging shadow IT start ups via lack of an internal offering and current speed to deliver, which has compliance and other risks.

Applications - Employees and customers will be able to use applications with more functionality in a more intuitive manner through multiple devices.. The Jurisdictions and business funnctions will be able utilize more reliable and resilient applications and leverage their full capability Application upgrades will enable CET to provide customers with more options to interact with the Company

Investment Prioritization

Benefits	•	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings			10 3%	0	OpEx Cost	0.300	-24.4%	-2.196
CapEx Annual Savings			5.1%	0	CapEx Cost	11.833	-11.2%	-1
Revenue Generation (annual)			6.2%	0	RTB Efficiency	0.000 9	-22.5%	0
Financial Control		does not apply	6.2%	0	Union/Labor Relations	Low	-9.8%	0
Soft Financial Benefits		does not apply	3.8%	0	Dependencies	Low	-10.6%	-0.106
Regulatory Impact		does not apply	11.2%	0	Elapse Time Duration	High	-6.6%	-0.594
Process & Personal Safety		does not apply	19.4%	o	Change Management Effort	Medium	-14.9%	-0.447
Reliability		Medium	10.9%	0.327				

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FY18-	Investment	Request	Summaries -	IRSs -	Rusiness	Innovation	Projects

Is Projects: 4728 - Business Innovation Projects 3 1. Has a dependency on IS Project; 2. Has a dependency on IS Project; 3. Has a dependency on IS Project; 4. Has a dependency on IS Project; 5. Has a dependency on IS Project; 6. Has a dependency on Is Initiative, 7. Nie	Cost Score: -4.4
Investment Risk and Complexity Project Risk Score: A1 Risk Score Description: Risk Impact = 5 and Risk Likelihood = 6 Project Complexity Score: A1 Project Complexity Score Description: Rey Risks Description: Provide detail on project risks & mitigation strategy: IS Project Dependencies if you don't see a project in the drop-down please contact the Planning & Performance team. S Projects: 4728 - Business Innovation Projects 3 Has a dependency on IS Project; Risks Description: Provide detail on project and dependency on IS Project; Risks Description: Provide detail on projects 3 dependency on IS Project; Risks Innovation Project; Risks Innovation Projects 3 dependency on IS Project; Risks Corre Description: Rey Risks Description: Provide detail on projects 3 dependency on IS Project; Risks Innovation Projects 3 dependency on IS Project; Risks Innovation Projects 3 dependency on Biz Initiative, Assa dependency on Biz Initiative, Assa dependency on Biz Initiative, Assa dependency on Biz Initiative, Risks Innovation Project Relationships Risks Innovation Project Richardships Risks Innovation Proj	Cost Score: -4.4
Investment Risk and Complexity Project Risk Score: A1 Risk Impact = 5 and Risk Likelihood = 6 Risk Impact = 5 and Risk Likelihood = 6 Project Complexity Score:: 16 Project Complexity Score Description: Key Risks Description: Provide detail an project risks & minigation strategy: IS Project Dependencies if you sont see a project in the drop-down please contact the Planning & Performance team. Bern S Projects: 4728 - Business Innovation Projects 3 dependency on IS Project; Has a dependency on IS Project; Residency on IS Project; Has a dependency on IS Project; Residency on IS Initiative, Adependency on Biz Initiative, Adepe	
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Has a dependency on IS Project; Ket Ket Ket Ket Ket Ket Ket K	fiting Operating Companies: Check all that apply
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Business Initiative Dependencies # Ket Ket Ket Ket Ket Nia dependency on Biz Initiative, Has a dependency on Biz Initiative, Na Project Relationships Project Relationship.	Span Energy Delivery Long Island Span Generation LLC (PSA)
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Has a dependency on Biz Initiative, Has a Project Relationships Project Relationship.	Span Energy Trading Svc LLC
Has a dependency on Biz Initiative, Has a Project Relationships Project Relationship.	gara Mohawk Power Corp-Electric Distribution gara Mohawk Power Corp - Gas
Has a dependency on Biz Initiative, Has a Project Relationships Project Relationship.	gara Mohawk Power Corp - Transmission
Has a dependency on Biz Initiative, Has a dependency on Biz Initiative, Has a dependency on Biz Initiative, Project Relationships Project Relationship.	sachusetts Electric Company
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	agansett Electric Company - Transmission England Power Company - Transmission
	England Hydro - Trans Corp
	England Electric Trans Corp
S NG	ING LP Regulated Entity
Enabling IS Capabilities check all that apply	

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FY18 - Investment Request Summaries - IRSs - Business Innovation Projects 3

Hybrid Cloud			□ Netwo	rks		
Next Gen Workplac	e					
Key Milestone Dat	es: Select the 1st, 15	ith or last day of the mon	th			
		Begin				
Begin Start-up R	Begin lequirements & Deign	Development & Implementation	Begin User Acceptance Testing	Go Live	Project Completion	Project Closure
April, 2019	equirements a beign	тиретепвион	osei Acceptance lesting	GO LIVE	March, 2021	Project Closure
Business Resource	Estimates: # of Ful	ll Time Equivalents				
Start-up R O	lequirements & Deign O	Develop & Implement O	Business Resources UAT O	Go Live Readiness O		ive Support O
Resourcing Strategy:						
Attached Support	ing Documents					
Recommendation	Sign-off					
Role	Name	TANIMA UA - N		Title		Date
Business Project Spansor	John Gilbert			Global Head IS Service	e Delivery, Global IS	**
Business Relationship Mane	oger Graham Pool			15 Business Relationsh	ip Manager	die ii
IS Program Delivery Manag	ger Tom Cunningh	hom		15 Program Delivery M	lanager	- and 1
				Table State Committee		nationalgrid

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Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: EUC, Network, and Data Center Strategy





	grid		Inve	stment Re	equest Sum	mary - IS	US FI	SCAL YEAR	2018	
INV ID:	4715	Project Na	me: <i>EUC, Net</i>	work, and Da	ata Center Stro	itegy				
Program:	Service .	Strategy Roadma	ap a							
Sponsor:	John Gil	bert		1	Title: Global Hea	d IS Service Deliv	ery, Global IS			
Relationship Ma	nager: Graham	Pool			litle: IS Relations	hip Manager, Gl	obal IS			
Prog Delivery Manager:	Tom Cur	ningham		Т	Title: Head of Pro	gramme Deliver	y, Global IS			
Paper Author:	Nicola P	ennington / Steve	e Trezza	Т	litle: Business Co	nsltant - Corporc	nte IS			
IS Roadmap Cat	regory: IS Assur	ance		θu	ısiness Area: Cor	oorate IS	Portfoli	o: IS for IS		
In-Flight Proje	ect? Invest Classificati	Medium	n Catego	y: Policy Driven	,	Primary Policy Dr	iver: Reliability		Region: US	
d Growth Playb	book Project?	Shaping Our	Future Project?	Energy Ef	ficiency Project?					
A Piece of stra	iption: The contex ategy work to asso is important give	ess the current st	ate and plan aga	inst the demand		trategies and pla	ns support achie	vement of those	business strategi	es. The
	nale: Highlight bu:			100 000						
This strategic	investment progr	am will help to a	ddress IS health :	and capability ch	iallenges while en	abling National (Grid's strategic b	usiness objective	95.	
Project Scope	Explain what is i	n scope and wha	t is not in scope f	or the project						
This scope co	vers all the identif	led functionality	for the core serv	ice to be upgrad	led or improved.					
Project Dener	ndencies: Identify	any core program	n or arniect dene	ndencies niense	include IMMP nue	nhere if known				
	strategic initiative						and succeed incl	uding		
 Advanced Ar 	nalytics	are dependent	on the work ac.		is occurrent, in o	raci to progress	and succeed men	don's.		
•Finance Cont •Gas Enablem										
•Customer Ex	perience Transfor	mation								
Basic Project i		better help emp	loyees to use ap	olications with m	nore functionality	in a more intuiti	ve manner.			
	les developed will									
	les developed will									
	les developed will									
	les developed will									
These strategi		hu riant va								
These strategi	Project Costs							10-		
Indicative F		FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Indicative F (SM) apEx	Project Costs	FY 2018 0,771	FY 2019 0.772	0,000	0,000	0.000	0.000	0.000	0.000	1,543
Indicative F (SM) apEx pEx	Project Costs	FY 2018 0,771 0.000	6.000 FY 2019	0.000	0.000	0.000	0.000	0.000	0.000	1,543 0.000
Indicative F (SM) apEx	Project Costs	FY 2018 0,771	FY 2019 0.772	0,000	0,000	0.000	0.000	0.000	0.000	Total 1,543 0,000 0,000
Indicative F (SM) apEx pEx appact on RTB	Project Costs Prior Years	FY 2018 0.771 0.000 0.000	0.772 0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,543 0,000
Indicative F (SM) apEx pex npact on RTB	Project Costs Prior Years Project Costs	6,771 0,000 0,000 by Delivery	0.772 0.000 0.000	0.000 0.000 0.000	0.000	0.000 0.000 0.000	0.000	0.000 0.000 0.000	0.000	1,543 0.000 0.000
Indicative F (SM) CapEx OPEx	Project Costs Prior Years Project Costs	FY 2018 0.771 0.000 0.000	0.772 0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,543 0,000

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(SM)	FY 2018	FY 2019	FY 2020	FY	2021	FY 2022	FY 2023	FY 2024	FY 2025		Total
pe I - CapEx	SECRETARIA DE	UIT SELL	THE !		112 1		11011				0.00
pe I - OpEx			111			- I made the same	ALIEN VIII				0.00
venue											
eneration				100							0.00
eed to do some ne impacts of th • Improves	, both financial and thing and why now ils program on the reliability and proc	P Explain any Customer are luctivity	and when those be Regulatory consider based on a number	ations and of areas:					e investment driv	vers – why	do we
	port for Jurisdiction better Customer E		ess function initiativ	es							
	Dulaulalmatam										
	Prioritization					l con					
enefits			Impact	Weight	Score	Cost			Impact	Weight	Score
pEx Annual Savi	ngs			10.3%	0	OpEx Cost			0.000	-24.4%	0
apEx Annual Sav	vings			5.1%	0	CapEx Cost			1,543	-11,2%	-1
evenue Generat	ion (annual)			6.2%	0	RTB Efficiency			0.000 %	-22.5%	0
inancial Control			does not apply	6.2%	0	Union/Labor Re	elations		loes not apply	-9.8%	0
oft Financial Ber	refits		does not apply	3,8%	0	Dependencies			Low	-10.6%	-0.106
egulatory Impac	t		does not apply	11.2%	o	Elapse Time Du	ration		Low	-6.6%	-0.066
rocess & Person	al Safety		does not apply	19.4%	0	Change Manag	ement Effort		Low	-14.9%	-0.149
eliability		Lo	ıw	10.9%	0.109						
ustomer & Comi	nunity Responsive	1622	Medium	5.3%	0.159						
mployee Satisfa	ction		Low	4.6%	0.046						
	orate Risk / Risk of	not Doing	High= 40 or more	8.9%	0.801	Art Filmin Director					
		not boning			1						
urisdictional Eng	идетен		High	8.2%							
			Bene	fit Score:	1.85				Co.	st Score:	-1.33
				1	Overall Pr	iority Score:	7.524				
Investment	Risk and Com	nlavity									
roject Risk Scare		Risk Sc	ore Description: lity - 5, likelihood 6								
roject Complexit core::	14		Complexity Score D	escription				ny least vi	1110211110	e e con	ohgi
ey Risks Descript	ion: Provide detail	on project risk new services.	s & mitigation strate without these strate	egy:	r underlyi	ng infrastructure, v	ve cannot deliver ne	w programs.			
					No.						
										0.70	
IS Dealest D	d!						DeBr	- One	C		
in Liolect D	ebendencies i	you don't see a pr	oject in the drop-down p	lease contact	the Planning	& Performance team.	penentin	R oberating	Companies	Check all tha	et apply

6/2/2017 FY18 - Investment Request Summaries - IRSs - EUC, Network, and Data Center Strategy Attachment 7 to DPS 275 IS-4 Page 15 of 68 1. Has a dependency on IS Project; 2. Has a dependency on IS Project; National Grid USA Parent 3. Has a dependency on IS Project; KeySpan Energy Development Corporation KeySpan Services Inc. 4. Has a dependency on IS Project; KeySpan Energy Corp KeySpan Energy Delivery New York 5. Has a dependency on IS Project; M KeySpan Energy Delivery Long Island 6. Has o dependency on IS Project; KeySpan Generation LLC (PSA) KeySpan Glenwood Energy Center KeySpan Port Jefferson Energy Center **Business Initiative Dependencies** KeySpan Energy Trading Svc LLC IS Projects: 4715 - EUC, Network, and Data Center Strategy Niagara Mohawk Power Corp- Electric Distribution dependency on Biz Initiative, 🖈 Niagara Mohawk Power Corp - Gas 1. Has a Niagara Mohawk Power Corp - Transmission dependency on Biz Initiative, Massachusetts Electric Company 2. Has a Massachusetts Electric Company - Transmission dependency on Biz Initiative, Mantucket Electric Company 3 Hasa Boston Gas Company dependency on Biz Initiative, Colonial Gas Company 4. Has a Marragansett Gas Company Narragansett Electric Company **Project Relationships** Narragansett Electric Company - Transmission Project Relationship: New England Power Company - Transmission Minor Works New England Hydro - Trans Corp Related Projects: New England Electric Trans Corp

NG LNG LP Regulated Entity

Hybrid Cloud			□ Networ	rks		
Next Gen Work	splace					
Key Milestone	Dates: Select the 1st, 15	th or last day of the mon	th			
Begin Start-up May, 2017	Begin Requirements & Deign	Begin Development & Implementation	Begin User Acceptance Testing	Go Live	Project Completion March, 2019	Project Closure
Business Resou	rce Estimates: # of Ful	l Time Equivalents				
Start-up O	Requirements & Deign 0	Develop & Implement 0	Business Resources UAT O	Go Live Readiness 0	Post Go Liv O	* *
Resourcing Strategy:						
Attached Supp	orting Documents					
Recommendati	on Sign-off					
Role	Name			Title		Date
Business Project Spons	or John Gilbert			Global Head IS Servi	ce Delivery, Global IS	

Enterprise Mobility

Reporting and Analytics

Enabling IS Capabilities check all that apply Enterprise Content Management (ECM)

Comprehensive Integration Services (CIS)

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FY18 - Investment Request Summaries - IRSs - EUC, Network, and Data Center Strategy

Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			national grid

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Planning & Performance Management • FY18 - Investment Request Summaries - IRSs: FY19 Data Centre Projects



Tags & Notes

nationalg	rid	2007	Inve	stment Re	quest Sum	mary - IS I	US FIS	SCAL YEAR	2018	
INV ID:	4716	Project Nar	ne: <i>FY19 Da</i>	ta Centre Proj	ects					
Program:	Service	Strategy Roadma	,							
Sponsor:	Iohn Gi	bert		Т	itle: Global Hea	d IS Service Delivi	ery, Global IS			
Relationship Ma	nager: Graham	Pool		т	itle: <i>IS Relations</i>	hip Manager, Gle	obal IS			
Prog Delivery Manager:	Tom Cui	nningham		т	itle: Head of Pro	ogramme Deliver	y, Global IS			
Paper Author:	Nicola F	Pennington / Steve	Trezza	Т	itle: Business Co	onsitant - Corporc	ite IS			
S Roadmap Cate	egory: IS Assu	rance		Ви	siness Area: Con	porate IS	Portfoli	o: IS for IS		
n-Flight Proje	ct? Invest Classificati	on: Medium	Catego	y: Policy Driven	,	Primary Policy Dr.	iver: Reliability		Region: US	
Growth Playb	ook Project?	Shaping Our F	uture Project?	Energy Eff	ficiency Project?					
		rt for the project w quipment which a								
Although thes	e are in the lega	cy data centers - th	ere are critical	applications that	are still in the le	gacy data center:	running on thes	e aged assets.		
In addition, th	e expectation is	that there will be s	ome services ri	etained in these o	data centers usin	g the aged infrast	tructure			
There is a risk connected to	to continuing to aged network pla	siness challenge, or run systems in the atforms. There is a one system, but a	legacy data cer likelihood that	ntres. A number either the comp	of mission critica ute platform or n					
·		vulnerable to more				n Itleaee this risk.				
Project Scope	Explain what is	in scope and what	is not in scope i	or the project						
		agreed plan to de			in Legacy Data o	entres.				
		any core program this project to sta								
Basic Project /				3.15: HAR	4-4					
		ision activities will will require NG inpu				There will be som	e activities partic	cularly around co	ordination of plan	is for
Indicative F	roject Costs	by Fiscal Yea	r							
(5M)	Prior Years	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
орЕх		0.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	2.000
pEx		0.000	0.800	0.000	0.000	0.000	0.000	0.000	0.000	0.800
npact on RTB		0.000	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.700
			Tallyst de sa							
		by Delivery F	hase							
(SM)	St	art-up		R&D		D&1		Closure		Total
арЕх				0.500		1.500				2.000

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Project Ben	efits - Type I d	only							
(SM)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Type I - CapEx						apple Dy's a		1111	0.000
Type I - OpEx								and real course	0.000
Revenue Generation									0.00

Key Business Benefits

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy.

The impacts of this project on the Customer are based on a number of areas:

- · Improves reliability and productivity
- · Support Jurisdictional and business function initiatives
- Enables a better Customer Experience

There is a risk of failure of unsupported platforms and the fact that many of these systems support key company operations. Thus, our ability to continue to provide safe and reliable service to our customers would be impacted if one of these systems were to fail.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	o	OpEx Cost	0.800	-24,4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cost	2.000	-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	35.000 %	-22.5%	-2.025
Financial Control	does not apply	6.2%	0	Union/Labor Relations	does not apply	-9.8%	0
Soft Financial Benefits	does not apply	3,8%	0	Dependencies	does not apply	-10.6%	0
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	does not apply	-6.6%	0
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	does not apply	-14.9%	0
Reliability	does not apply	10.9%	0				
Customer & Community Responsiveness	does not apply	5.3%	0				
Employee Satisfaction	does not apply	4.6%	0				
Mitigates a Corporate Risk / Risk of not Doing	does not apply	8.9%	0				
Jurisdictional Engagement	does not apply	8.2%	o				
	Bene	fit Score:	0.00		Cos	t Score:	-5.23

Overall Priority Score: -5.229

Investment Risk and Complexity

Project Risk Scare:	41	Risk Scare Description: Reliability - 5, likelihood 6	
Project Complexity Score::		Project Complexity Score Description.	designated to be suppressed.
July 2	21	Market Control of the	
	394	THE PERSON NAMED IN COLUMN 1 INCOME.	

Key Risks Description: Provide detail on project risks & mitigation strategy:

There is a risk of failure of these unsupported platforms, as the fact that many of these systems support key company operations. Thus, our ability to continue to provide safe and reliable service would be impacted if one of these systems were to fail.

Now that customers are demanding new services, without this investment of upgrading our underlying technology infrastructure, we cannot deliver these new strategic programs.

IS Project Dependencies If you don't see a project in the drop-down please contact the Planning & Performance team.

Benefiting Operating Companies: Check all that apply

Attachment 7 to DPS 275 IS-4 Page 19 of 68

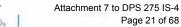
IS Projects: 4716 - FY19	Data Centre Projects			Select All C	ompanies 🔲 Clear All C	ompanies
1. Has a	dependency on IS Pro	ject;		Select All G	as Select All	Electric Select All
2. Has a	dependency on IS Pro	ject;		✓ National Gr	/dusa 8	
3. Has a	dependency on IS Pro	ject;		KeySpan En	ergy Development Corpo	ration
4. Has a	dependency on IS Pro	ject;		KeySpan Se	rvices Inc.	
5. Has a	dependency on IS Pro	ject;		KeySpan En	ergy Corp ergy Delivery New York	
6. Has a	dependency on IS Pro	ject;		KeySpan En	ergy Delivery Long Island	
					eneration LLC (PSA) enwood Energy Center	
Business Initiativ	ve Dependencies				rt Jefferson Energy Cente	r
IS Projects: 4716 - FY15					ergy Trading Svc LLC	
1. Has a	dependency on Biz In	tiative,			hawk Power Corp- Electri hawk Power Corp - Gas	ic Distribution
2. Has a	dependency on Biz In	tlotive,			hawk Power Corp - Trans etts Electric Company	mission
24	dependency on Biz In	tiative.			etts Electric Company etts Electric Company - Tr	ansmission
3. Has a				Mantucket i	Electric Company	
4. Has a	dependency on Biz In	tiative,		Boston Gas		
				Colonial Ga	s Company tt Gas Company	
Project Relation	shins				tt Electric Company	
Project Relation.	Project Relationship:				tt Electric Company - Tran	smission
Minor Works	rrayeet neistionsinp				d Power Company - Trans	smission
Related Projects:					d Hydro - Trans Corp	
					d Electric Trans Corp Regulated Entity	
					,	
Enabling IS Capa	bilities check all that ap	ply		P to the second		
Enterprise Conte	nt Management (ECM)		Enterpr	ise Mobility		
Comprehensive I	ntegration Services (CIS)		Reporti	ng and Analytics		
Hybrid Cloud			☐ Networ	rks		
Next Gen Workp	lace					
Key Milestone D	ates: Select the 1st, 15t	or last day of the mon	th			
		Begin				
Begin Start-up	Begin Requirements & Deign	Development & Implementation	Begin User Acceptance Testing	Go Live	Project Completion	Project Closure
January, 2018					March, 2020	
Rusiness Resnur	ce Estimates: # of Full	Time Faulusients				
		ľ				
Start-up O	Requirements & Deign O	Develop & Implement 0	Business Resources UAT O	Go Live Readiness O	Post Ga Liv O	
Resourcing Strategy:						
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Attached Suppo	orting Documents					
		<u> </u>				
Recommendation	on Sign-off					

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FY18 - Investment Request Summaries - IRSs - FY19 Data Centre Projects

Role	Name	Title	Date
Business Project Sponsor	John Gilbert	Global Head IS Service Delivery, Global IS	
Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
			nationalgric





Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: 1327 Interfaces - 523 FTS, 340 RDX, 245 MQSI, 253 JCAPS, 44 PM4D, 7 VB

0 I Like It

Tags &

	grid	808 1127		water.		equest Sun			SCAL YEAR	2010	_
IV ID:	4	1706 Pro	oject Name:	1327 Inte	erfaces - 523	FTS, 340 RDX,	245 MQSI, 25.	3 JCAPS, 44 PI	M4D, 7 VB		
rogram:											
oonsor:	Jol	hn Gilbert				Title: Global Hea	d IS Service Deliv	ery, Global IS			
elationship M	anager: Gr	sham Pool			,	Title: IS Relation:	ship Manager, Gla	obal IS			
rog Delivery tanager:	Tot	m Cunningham	1			Title: Head of Pro	ogramme Deliver	y, Global IS			
oper Author:	Nic	cola Penningtor	n / Steve Trez	20		Title: Business Co	onsitant - Corpore	ate IS			
Roadmap Ca	tegory: IS	Assurance			8	usiness Area: Cor	porate IS	Portfol	io: Global F, SS &	c	
In-Flight Pro	ject? Invest	t ification;	Medium	Categor	y. Policy Driver	1	Primary Policy Dr.	iver: Reliability		Region: US	
Growth Play	book Project	? 🔲 Shapi	ing Our Futur	e Project?	Energy E	fficiency Project?					
		ontext for the p				iant on out of sup	port infrastructu	re. These risks a	re :		
• Incre	ased Security	risk as out of :	support infra	structure wi	Il not receive se	curity patches.					
• In the	e event of fall goes out of su	ure National G	irld IS will be ajority of the	unable to m se applicatio	eet the agreed ns currently ha			or many key appi	lications once the	middleware infra	structure
						uctivity Improver	nents enabling in	nprovements in t	the efficiency of o	ata and file trans	er.
Project Ratia	nale: Highlig	ht business cha	allenge, capai	bility or prod	ess the project	addresses					
		gacy services.	or supports				in is required to	ingrate interract	s from legacy se	rvices to strategic	3614(663
		at is in scope at included in the				245 MQSI, 253 JO	APS, 44 PM4D, 7	VB			
		ntify any core power to the core of the co		roject deper	ndencies, please	include INVP nu	mbers if known				
Basic Project All migration	Assumptions	i:									
After discuss	ion with fina									s as interfaces mo	
implementat											
	Project Co	osts by Fisc	cal Year								
ndicative	,	_		2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
	Prior Year			0.700	0,000	0.000	0.000	0.000	0.000	0.000	-
(SM)	Prior Years	-	2.600		-,			0.000		0,000	3.30/
(\$M) DEx	Prior Years	2	2.600	0,000	0.000	0.000	0.000	0.000	0.000	0.000	
	Prior Years	0	2.600 2.020 2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020 0.000
(\$M) DEX EX	Prior Years	0	0.020		- 3						0.020

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FY18 - Investment Request Summaries - IRSs - 1327 Interfaces - 523 FTS, 340 RDX, 245 MQSI,...

СарЕх				0.600	Paris III	2,700	- 1 m 0,		3,300
ОрЕх		0.010		0.000		0.000		0.010	0.020
Project Ben	efits - Type I	only							
(SM)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Type I - CapEx				-					0.000
Type I - OpEx									0.000
Revenue Generation	1								0.000

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers - why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. The impacts of this project on the Customer are based on a number of areas:

- Improves reliability and productivity
- Support Jurisdictional and business function in tiatives
- Enables a better Customer Experience

Employees will be able to use an application with more functionality in a more intuitive manner. The Jurisdiction and business function will be able to utilize a more reliable and resilient application, that will help to provide customers with more options when interacting with the Company.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.020	-24.4%	244
CapEx Annual Savings		5.1%	0	CapEx Cost	3.300	-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	0.000	% -22.5%	0
Financial Control	Low	6.2%	0.062	Union/Labor Relations	Low	-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	High	-10.6%	-0.954
Regulatory Impact	Low	11.2%	0.112	Elapse Time Duration	High	-6.6%	-0.594
Process & Personal Safety	Low	19.4%	0.194	Change Management Effort	Medium	-14.9%	-0.447
Reliability	Medium	10.9%	0.327	PRODUCED BY STREET			
Customer & Community Responsiveness	Medium	5.3%	0.159				
Emplayee Satisfaction	Medium	4.6%	0.138				
Mitigates a Corporate Risk / Risk of not Doing	High= 40 or more	8.9%	0.801				
Jurisdictional Engagement	High	8.2%	1				
	Вепе	fit Score:	2.57			Cost Score:	-3.35

Overall Priority Score: -0.776

Investment Risk and Complexity

and the state of the state of the state of

Key Risks Description: Provide detail on project risks & mitigation strategy:

There is a risk of fallure of these unsupported platforms, as the fact that many of these systems support key company operations. Thus, our ability to continue to provide safe and reliable service would be impacted if one of these systems were to fail.

Now that customers are demanding new services, without this investment of upgrading our underlying technology infrastructure, we cannot deliver these new strategic programs.

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IS Project Depe							
Projects: 4706 - 132	7 Interfaces - 523 FTS, 340 F	DX, 245 MQSI, 253 JCA	PS, 44 PM4D, 7 VB	Select All Co	ompanies 🔲 Clear All Co	ompanies	
Has a	dependency on IS Pro	Vact:		Select All G			
	dependency on 15 Pro	gect;		Gen			
Has a	dependency on IS Pro	ject;		Mational Gr	id IISA Parent		
Has a	dependency on IS Pro	ject;			ergy Development Corpor	ation	
				★ KeySpan Se.			
Has a	dependency on IS Pro	ject;		KeySpan En	ergy Corp		
Has a	dependency on IS Pro	lect:		KeySpan En	ergy Delivery New York		
					ergy Delivery Long Island		
Has a	dependency on IS Pro	ject;			neration LLC (PSA)		
					enwood Energy Center		
Business Initiati	ive Dependencies				rt Jefferson Energy Center ergy Trading Svc LLC		
Projects: 4706 - 132	17 Interfaces - 523 FTS, 340 I	RDX. 245 MOSI. 253 IC	APS. 44 PM4D. 7 VB		ergy trading SVC LLC hawk Power Corp- Electric	Distribution	
,	dependency on Biz In		,,		hawk Power Corp • Gas	, DISTILLUCION	
Has a					hawk Power Corp - Transn	nission	
	dependency on Biz In	tiative,			etts Electric Company		
Has a					etts Electric Company - Tra	nsmission	
Has a	dependency on Biz Ini	tiative,		Mantucket 6	lectric Company		
1103 0				Boston Gas			
Has a	dependency on Biz Ini	itiative,		Colonial Gas			
				Marraganset			
D-1-45 141					tt Electric Company		
Project Relation	•				tt Electric Company - Trans		
Minor Works	Project Relationship:				d Power Company - Transi d Hydro - Trans Corp	mission	
lated Projects:					gland Electric Trans Corp		
natea Projects:							
				Ø NG LNG LP E	Regulated Entity		
Enabling IS Cap	abilities check all that ap	ply		Ø NG LNG LP F	Regulated Entity		
	abilities check all that ap	ply	□ Enterpi	✓ NG LNG LP E	Regulated Entity		
Enterprise Cont		ply			Regulated Entity		
Enterprise Cont	ent Management (ECM)	ply		rise Mobility ng and Analytics	Regulated Entity		
☐ Enterprise Cont	ent Management (ECM) Integration Services (CIS)	ply	Reportion Reportion	rise Mobility ng and Analytics	Regulated Entity		
■ Enterprise Cont. Comprehensive ■ Hybrid Cloud ■ Next Gen Work	ent Management (ECM) Integration Services (CIS)		☐ Reportion	rise Mobility ng and Analytics	Regulated Entity		
■ Enterprise Cont. Comprehensive ■ Hybrid Cloud ■ Next Gen Work	ent Management (ECM) Integration Services (CIS) place	n or last day of the mon	☐ Reportion	rise Mobility ng and Analytics	Regulated Entity		
■ Enterprise Conto Comprehensive Hybrid Cloud Next Gen Work Key Milestone I Begin	ent Management (ECM) Integration Services (CIS) place Dates: Select the 1st, 15th Begin	n or last day of the mon <i>Begin</i> Development &	☐ Reportion ☐ Netwood th Begin	rise Mobility ng and Analytics rks			
■ Enterprise Continue Comprehensive ■ Hybrid Cloud ■ Next Gen Work Key Milestone I	ent Management (ECM) Integration Services (CIS) place Dates: Select the 1st, 15th	n or last day of the mon Begin	□ Reporti	rise Mobility ng and Analytics	Regulated Entity Project Completion	Project Closure	
Enterprise Conto Comprehensive Hybrid Cloud Next Gen Work Key Milestone I	ent Management (ECM) Integration Services (CIS) place Dates: Select the 1st, 15th Begin	n or last day of the mon <i>Begin</i> Development &	☐ Reportion ☐ Netwood th Begin	rise Mobility ng and Analytics rks		Project Closure	
Enterprise Continued Comprehensive Hybrid Cloud Next Gen Work Key Milestone I Begin Start-up April, 2017	ent Management (ECM) Integration Services (CIS) place Dates: Select the 1st, 15th Begin Requirements & Deign	n or last day of the mon Begin Development & Implementation	☐ Reportion ☐ Netwood th Begin	rise Mobility ng and Analytics rks	Project Completion	Project Clasure	
Enterprise Continued Comprehensive Hybrid Cloud Next Gen Work Key Milestone I Begin Start-up April, 2017	ent Management (ECM) Integration Services (CIS) place Dates: Select the 1st, 15th Begin	n or last day of the mon Begin Development & Implementation	Reportion Netwood Netwood Begin User Acceptance Testing	rise Mobility ng and Analytics rks	Project Completion	Project Closure	
Enterprise Cont Comprehensive Hybrid Cloud Next Gen Work Key Milestone I Begin Start-up April, 2017	ent Management (ECM) Integration Services (CIS) place Dates: Select the 1st, 15th Begin Requirements & Deign	n or last day of the mon Begin Development & Implementation	☐ Reportion ☐ Netwood th Begin	rise Mobility ng and Analytics rks	Project Completion		
Enterprise Continued Comprehensive Hybrid Cloud Next Gen Work Key Milestone I Begin Start-up April, 2017 Business Resour	ent Management (ECM) Integration Services (CIS) place Dates: Select the 1st, 15th Begin Requirements & Deign rce Estimates: # of Full: Requirements & Deign	n or last day of the mon Begin Development & Implementation Time Equivalents Develop & Implement	Reportion Netwood N	rise Mobility ng and Analytics rks Go Live	Project Completion March, 2019 Post Go Live		
Enterprise Continued Comprehensive Hybrid Cloud Next Gen Work Key Milestone I Begin Start-up April, 2017 Business Resour	ent Management (ECM) Integration Services (CIS) place Dates: Select the 1st, 15th Begin Requirements & Deign rce Estimates: # of Full: Requirements & Deign	n or last day of the mon Begin Development & Implementation Time Equivalents Develop & Implement	Reportion Netwood N	rise Mobility ng and Analytics rks Go Live	Project Completion March, 2019 Post Go Live		
Enterprise Continued Comprehensive Hybrid Cloud Next Gen Work Key Milestone I Begin Start-up April, 2017 Business Resour	ent Management (ECM) Integration Services (CIS) place Dates: Select the 1st, 15th Begin Requirements & Deign rce Estimates: # of Full: Requirements & Deign	n or last day of the mon Begin Development & Implementation Time Equivalents Develop & Implement	Reportion Netwood N	rise Mobility ng and Analytics rks Go Live	Project Completion March, 2019 Post Go Live		
Enterprise Conto	ent Management (ECM) Integration Services (CIS) place Dates: Select the 1st, 15th Begin Requirements & Deign rce Estimates: # of Full: Requirements & Deign	n or last day of the mon Begin Development & Implementation Time Equivalents Develop & Implement	Reportion Netwood N	rise Mobility ng and Analytics rks Go Live	Project Completion March, 2019 Post Go Live		
Enterprise Conto	ent Management (ECM) Integration Services (CIS) place Dates: Select the 1st, 15th Begin Requirements & Deign rce Estimates: # of Full: Requirements & Deign 0	n or last day of the mon Begin Development & Implementation Time Equivalents Develop & Implement	Reportion Netwood N	rise Mobility ng and Analytics rks Go Live	Project Completion March, 2019 Post Go Live		

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FY18 - Investment Request Summaries - IRSs - 1327 Interfaces - 523 FTS, 340 RDX, 245 MQSI,...

Role	Name	Title	Date
Business Project Sponsor	John Gilbert	Global Head IS Service Delivery, Global IS	
Business Relationship Manager	Graham Paol	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	

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Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: US Video Conference Programme





national grid			juest Summary - IS US	FISCAL YEAF	ł 2018
/ID:	4497 Project Nam	e: US Video Conference Pr	rogramme		
ngram:	Service Strategy Roadmap				
onsor:	Iohn Gilbert	Tit	le: Global Head IS Service Delivery, Gl	labal IS	
ationship Manager:	Bill Kearns	Titl	e: IS Relationship Manager, Global IS	i	
ng Delivery nager:	Dave McCune	Titi	le: Programme Delivery, Global IS		
per Author:	Nicola Pennington / Steve T	rezza Titl	e: Business Consultant - Corporate IS	/ Service Strategy	
loadmap Category:	IS Assurance	Busi	ness Area: Corporate IS	Portfolio: 15 for 15	
In-Flight Project?	Invest Classification:	Category: Policy Driven	Primary Policy Driver:	tellability	Region: Global
Growth Playbook Pro	oject? Shaping Our Fu	ture Project? Energy Effic	tiency Project?		
raject Description: 1	The context for the project wit	h background information			
nis project will repl	lace the current Verizon OVC (Open Video Conferencing) dedic	ated service with cloud based WebEx	CMR (Collaboration meeti	ng room) service
		pability or process the project adoubt audio and video onto a comm	ldresses non integrated platform, Providing a :	more consistent and reliab	le evnerience for users
			t they find most appropraite - eg from		
ebex app.			provements as the supplier makes im		or from an Ipac with
	ne platform will reduce costs.				
			\$150 per hour. Using webex will rem		
we contently	sherin axin Buspank off Arneo	cans - every can on the bridge is	2130 bet godt: OsuiR Meney Mill Lett	ove mese cuarges	
roject Scope: Explai	n what is in scope and what is	not in scope for the project			
Migration of \	VC units from OVC bridge to w	ebex			
 Includes Skyp 	e for Business client integration	on with webex			
Change progr	am to drive user migration to	the new platform			
cluded - any roll ou	at of webex or skype for busin	ess to Individual users.			
ork required:					
		all connectivty to allow all VC uni siness ederation between call m			
	the feature to existing webe		anager and skype for business.		
			ackage to provide feature for new user ard rooms and then project to proceed		
		nalgrid to faciliate the move from		а арргориалсту	
ninet Danandanaia	- Id-116		aluda MAM		
	anger upgrade project	r project dependencies, please in	ciude invernumbers if known		
		ation edge VC gateway architect			
ependent on IDS an	id forward proxies projects - d	ue to increase of bandwidth req	uirement,		
isic Project Assump	otions:				
Costs are very high	level ROM	E			
	uration and business change =	will be opex			
		will be revisited during develop	ment of the Investment Paper		
Assumes its a globa RTB reduction costs	44. 44.1 45.4.5.4 4	ths with communcations to drive	e further adoption		
Assumes its a globa RTB reduction costs	ility will be available in 3 mon				
Assumes its a globa RTB reduction costs	liity will be available in 3 mon				
Assumes its a globa RTB reduction costs Assumed the capab					
Assumes its a globa RTB reduction costs Assumed the capab dicative Project	ct Costs by Fiscal Year	FY 2019 FY 2020	FY 2021 FY 2022 FY 2	2023 FY 2024	FY 2025 Total

6/2/20

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	FY18	8 - Investment i	Request Sumn	naries - IRSs -	US Video Co	nference Prog	ramme		Attachr
x	0.200	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.210
act on RTB	-0.200	-0.500	0.370	0.370	0.370	0.370	0.370	0.370	1.520
dicative Project (Costs by Delivery P		1& D	Issip I su	D&I		Closure		Total
DEX.			0.200		1.450				1.650
	0.020		0.040		0.200		0.0	10	0.270
I - CapEx I - OpEx									0.000
oject Benefits - T		FY 2020	FY 2021	FY 2022	FY 202	3 FY 20	024 F	FY 2025	Total
				1					0.000
nue eration	100	45							0.000
nue eration Business Benefits:	ncial and non-financial, a				clear & concise with the US Bu		ting the investi	ment drivers – w	hy do

Investment Prioritization

	Bene	fit Score:	2.38		Cos	t Score:	-1.8
Jurisdictional Engagement	High	8.2%	1				
Mitigates a Corporate Risk / Risk of not Doing	High= 40 or more	8.9%	0.801				
Employee Satisfaction	Medium	4.6%	0.138				
Customer & Community Responsiveness	Medium	5.3%	0.159				
Reliability	Medium	10.9%	0.327				
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Medium	-14.9%	-0.44
Regulatory Impact	Low	11.2%	0.112	Elapse Time Duration	High	-6.6%	-0.59
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Low	-10.6%	-0.10
Financial Control	Low	6.2%	0.062	Union/Labor Relations	does not apply	9.8%	0
Revenue Generation (annual)		6.2%	0	RTB Efficiency	0.000 %	-22.5%	0
CapEx Annual Savings		5.1%	0	CapEx Cost	0.000	-11.2%	0
OpEx Annual Savings		10.3%	0	OpEx Cost	0.210	24.4%	73
Benefits	Impact	Weight	Score	Cost	Impact	Weight	Scor
				î ·			

and more personal communications between all parties. This will be achieved through use of a consistent set of easy to use communication tools that provide voice, video, and text communications between parties both within and outside the company. In addition, these tools will take advantage of the capabilities of the new device being used to relay real-time information in the form of pictures, videos, and telemetry to staff and systems that can proocess the information and provide informed feedback to the remote staff.

Overall Priority Score:

Investment Risk	Investment Risk and Complexity Project Risk Score: Risk Score Description: Business will not achieve benefits of Improved meeting experience.							
Project Risk Score:	46		the matter and remove policies					
Project Complexity Score::	14	Project Complexity Score Description:						

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S Project Dependencies 1 you down see a project to the drop-down planse central the Planning & Parlamenance Issue S Projects: 4497 - US Video Conference Programme Select All Gas Selec	ey Risks Description: Prov Older VC equipment will n Users will not adapt to nev	ot be compatible	ks & mitigation strategy:								
S Projects: 4497 - US Video Conference Programme Has a dependency on IS Project; And a dependency on IS Initiative. And a dependency on IS Initiative, And a dependency on IS In	sers will not adapt to nev	w platiorm									
S Projects: 4497 - US Video Conference Programme Has a dependency on IS Project; And a dependency on IS Initiative. And a dependency on IS Initiative, And a dependency on IS In											
Select All Companies											
S Projects: 4497 - US Video Conference Programme Has a dependency on IS Project; And a dependency on IS Initiative. And a dependency on IS Initiative, And a dependency on IS In											
Has a dependency on its Project; Has a dependency on its Initiative. Has a dependency on its Initiative, Has	IS Project Depend	encies If you don't see a p	project in the drop-down please	contact the Planning I	l Performance t	Benefit	ting Operating Compa	nies: Check all that apply			
And a dependency on is Project; Business initiative Dependencies Serojects: 4497 - Us Video Conference Programme And a dependency on Bit initiative, And a dep	Projects: 4497 - US Vide	ea Conference Program	me			☐ Select	All Companies 🔲 Clear All C	Companies			
### dependency on 15 Project; ### dependency on 15 Initiative, ### dependency on 15 Project; ###	Has a	dependency on IS Pr	oject;				All Gas Select All	Electric Select A			
. Has a dependency on is Project; . SeySpan Energy Delivery New York . KeySpan Energy Delivery New York . KeySpan Energy Delivery Ivong Island . KeySpan Energy Center . KeySpan Energy Trading Sve LLC . KeySpan Energy Center . KeySpan Energy Center . KeySpan Forergy Center . KeySpan Energy Center . KeySpan Forergy Delivery Iton Istal Center . KeySpan Forergy Transmiter . KeySpan Forergy Delivery Iton Istal Center . KeySpan Forergy Delivery Iton Istal Center . KeySpan Forergy Delivery Iton Is	Has a	dependency on IS Pr	oject;								
Has a dependency on 15 Project; Business Initiative Dependencies Serojects: 4497-US Video Conference Programme dependency on Bit Initiative, Has a dependency on Bit Initiative, Navaranisettic Company Navaranisettic Gordany New England Hydr	Has a	dependency on IS Pr	oject;			1.00		eration			
## As a dependency on IS Project; ## Has a dependency on IS Project; ## Has a dependency on IS Project; ## Business Initiative Dependencies ## ReySpan Energy Delivery Long Island ## ReySpan Energy Center ## ReySpan Energy Delivery Long Island ## ReySpan Energy Center ## ReySpan Energy Center ## ReySpan Energy Delivery Long Island ## ReySpan Energy Delivery Long Island ## ReySpan Energy Center ## ReySpan Energy Delivery Long Island ## ReySpan Energy Delivery Long Island ## ReySpan Energy Delivery Long Island ## ReySpan Energy Center ## ReySpan Energy Center ## ReySpan Energy Center ## ReySpan Energy Center ## ReySpan Energy Delivery Long Island ## ReySpan Energy Center ## ReySpan Energy Port Long ## Massachusetts Electric Company ## Narragansett Elect	Has a	4				🥙 KeySpa	an Services Inc.				
### Add ### Ad	nas a	dependency on IS Pr	oject;								
i. Has a dependency on IS Project; Business Initiative Dependencies Business Initiative Dependencies S Projects: 4497 - US Video Conference Programme dependency on Biz Initiative, Has a dependency on Biz Ini	Has a	dependency on IS Pr	oject;								
Business Initiative Dependencies ### KeySpan Port Jefferson Energy Center ### KeySpan Forty Tefferson ### KeySpan Forty Tefferson Energy Center ### KeySpan Forty Tefferson ### Massachusetts Electric Company ### Anancia Company ### Anancia Center ### Anancia C	Has a	dependency on IS Pr	oject;			237					
S Projects: 4497 - Us Video Conference Programme dependency on Bit Initiative, Massachusetts Electric Company - Transmiss Massachusetts Electric Company - Transmiss Massachusetts Electric Company - Transmiss Marragansett Electric Company - Transmiss Marragansett Electric Company - Transmiss New England Power Corp Trans		•				KeySpa	an Glenwood Energy Center				
S Projects: 4497 - US Video Conference Programme dependency on Biz Initiative, Mas a dependency on Biz Initiative, Has a dependency on Biz Initiative, Massachusetts Electric Company Narragansett Electr	Business Initiative	Dependencies						r			
dependency on Biz Initiative,			me					in Dinastruation			
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And a dependency on Biz Inlitative, Has a dependency on Biz Inlitative, Colonial Gas Company Narragansett Gas Company Narragansett Gas Company Narragansett Electric Company New England Power Company New England Electric Company New England P	Has a						Niagara Mohawk Power Corp - Transmission				
Altas a dependency on Biz Initiative, dependency on Biz Initiative	Has a	dependency on Biz Is	illative.								
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## Description of the project Relationships Project Relationships	Has a	dependency on biz in	intidetive,								
Project Relationships Project Relationship: Minor Works Related Projects: Project Relationship: Related Projects: Project Relationship: Related Projects: Repair Requirements & Delgn Requirements & Delgn Requirements & Delgn Reprosess Results Result Company Narragansett Electric Company New England Power Company - Transmis New England Hydro - Trans Corp New England Electric Trans Corp New England Electric Trans Corp Repulse Mobility Reporting and Analytics Networks Networks Reporting and Analytics Networks Replin Begin Begin Development & Begin Start-up Requirements & Delgn Implementation User Acceptance Testing Go Live Project Completion March, 2019	Une a	dependency on Biz Is	itiative,								
Project Relationships Project Relationship: Minor Works Project Relationship: New England Power Company - Transmis New England Hydro - Trans Corp New England Electric Trans Corp New England Hydro - Transmis New England Hydro - Transmis New England Hydro - Transmis New England Hydro - Trans Corp New England Hydro - Transmis New England	nus u										
Minor Works Project Relationship: New England Power Company - Transmis New England Hydro - Trans Corp New England Hydro - Trans Corp New England Electric Trans Corp New England Electric Trans Corp New England Electric Trans Corp No LNG LP Regulated Entity Enterprise Content Management (ECM) Enterprise Content Management (ECM) Comprehensive Integration Services (CIS) Hybrid Cloud Next Gen Workplace Key Milestone Dates: Select the 1st, 15th or last day of the month Begin Start-up Requirements & Deign Development & Begin Start-up Requirements & Deign Implementation User Acceptance Testing Go Live Project Completion June, 2017 March, 2019	Books of Bolton of										
## Minor Works Related Projects: Powe England Hydro - Trans Corp New England Electric Trans Ele	Project Kelationsh					Narrag Naur E	ansett Electric Company - Tran	rsmission			
Enabling IS Capabilities check all that apply Enterprise Content Management (ECM) Comprehensive Integration Services (CIS) Hybrid Cloud Next Gen Workplace Key Milestone Dates: Select the 1st, 15th or last day of the month Begin Start-up Requirements & Deign Implementation June, 2017 New England Electric Trans Corp Regulated Entity Reporting and Analytics Networks Networks Reporting and Electric Trans Corp NG LNG LP Regulated Entity	Minor Works	Project Relationship:				≥ New E	New England Power Company - Transmission New England Hydro - Trans Corp				
Enabling IS Capabilities check all that apply Enterprise Content Management (ECM)	lated Projects:					✓ New Er	ngland Electric Trans Corp				
Enterprise Content Management (ECM) Comprehensive Integration Services (CIS) Hybrid Cloud Networks Next Gen Workplace Key Milestone Dates: Select the 1st, 15th or last day of the month Begin Begin Begin Development & Begin Start-up Requirements & Deign Implementation User Acceptance Testing Go Live Project Completion June, 2017						MG LNC	G LP Regulated Entity				
Enterprise Content Management (ECM) Comprehensive Integration Services (CIS) Hybrid Cloud Networks Next Gen Workplace Key Milestone Dates: Select the 1st, 15th or last day of the month Begin Begin Begin Development & Begin Start-up Requirements & Deign Implementation User Acceptance Testing Go Live Project Completion June, 2017											
Enterprise Content Management (ECM) Comprehensive Integration Services (CIS) Hybrid Cloud Networks Next Gen Warkplace Key Milestone Dates: Select the 1st, 15th or last day of the month Begin Begin Begin Development & Begin Start-up Requirements & Deign Implementation User Acceptance Testing Go Live Project Completion June, 2017											
Enterprise Content Management (ECM) Comprehensive Integration Services (CIS) Hybrid Cloud Networks Next Gen Warkplace Key Milestone Dates: Select the 1st, 15th or last day of the month Begin Begin Begin Development & Begin Start-up Requirements & Deign Implementation User Acceptance Testing Go Live Project Completion June, 2017	Fnahling IS Canahi	lities check all that as	nolu								
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Hybrid Cloud Next Gen Warkplace Key Milestone Dates: Select the 1st, 15th or last day of the month Begin Begin Development & Begin Start-up Requirements & Deign Implementation User Acceptance Testing Go Live Project Completion June, 2017 March, 2019											
Next Gen Workplace Key Milestone Dates: Select the 1st, 15th or last day of the month Begin Begin Development & Begin Start-up Requirements & Deign Implementation User Acceptance Testing Go Live Project Completion June, 2017 March, 2019		,				-					
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June, 2017 March, 2019			Development &			500					
	Start-up R	lequirements & Deign	Implementation	User Acceptan	ce Testing	Go Live	Project Completion	Project Closure			
	June, 2017					March, 2019					
Business Resource Estimates: # of Full Time Equivalents	Business Resource	Estimates: # of Full	Time Equivalents								
Start-up Requirements & Delgn Develop & Implement Business Resources UAT Go Live Readiness Post Go Live Su	Start-un 6	lequirements & Delon	Develop & Implement	Business Research	inces HAT	Go Live Readiness	Post Go Un	e Support			
0 0 0 0 0 0	•				Jane Offi			* *			

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6/2/20	117 FY18 - Investment Request Summaries - IRSs - US Video Conference Programme Att	ac
	Now that customers are demanding new services, without these VC Improvements in our underlying technology infrastructure, we cannot deliver these new strategic programs.	
	Communications/Business change will be required to delivery business change.	
	A THE CONTROL OF THE	

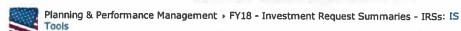
Recommendation Sign-off

Attached Supporting Documents

Role	Name	Title	Date
Business Project Sponsor	John Gilbert	Global Head IS Service Delivery, Global IS	
Business Relationship Manager	Bill Keoms	IS Business Relationship Manager	
IS Program Delivery Manager	Dave McCune	IS Program Delivery Manager	

national**grid**

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nationalg	rid		Inve	estment Re	quest Sun	nmary - IS	US FI	SCAL YEAR	R 2018	
INV ID;	45	13 Project N	lame: 15 Tools							
Program;	Servi	ce Strategy Roadm	пар							
Sponsor:	Iohn	Gilbert		1	litle: Global Hea	d of IS Service De	elivery			
Relationship Man	ager: Grah	am Pool		= = 1	litle: IS Relation	ship Manager, Gl	obal IS			
Prog Delivery Manager:	Tom	Cunningham		Т	Title: Head of Pri	ogramme Deliver	ry, Global IS			
Paper Author:	Nicol	a Pennington / Stev	ve Trezza	Т	itle: Business Co	onsultant - Corpo	rate IS / Service	Strategy		
IS Roadmap Cates	gory: Integ	ration Services		Bu	isiness Area: Cor	porate IS	Portfo	lio: IS for IS		
In-Flight Projec	t? Invest Classific	Mediu	ım Catego	Policy Driven		Primary Policy Di	lver: Reliability		Region: Glot	ool
Growth Playbo	ok Project?	Shaping Our	r Future Project?	Energy Ef	ficiency Project?					
IS utilises a num Tools for suport	iber of tools t ting IS proces	text for the project to support IS proces ses - includes exten t is to be conducted	ss to improve qua ssion of use of rat	lity and productive ional suite (Focal p	point, rtc etc) - e	cludes ITSM - thi	s is assumed to b	e in Athena Proje	ct	
					41					
Project Rationa Provides produc	le: Highlight tivity and eff	business challenge, iclency improvemer	, capability or pro	ocess the project or orimarily for proce	addresses esses supporting I	S project process	es (from investm	ent planning thro	ough to implemen	tation).
		is in scope and who ntified functionality								
		ify any core program mprovements - Acti					services			
Davis Basis et As										
	mall Iterative	projects - and clou onfiguration require			entation of new s	ervice (which cou	ild be capilised) i	but some configur	ration (opex) - op	ex in later
Indiantivo De	ninet Can	to bu Classi Va	12.0							
		ts by Fiscal Ye		EV 2020	EV 2024	EV 2022	EV 3033	D/ 3034	EV 3025	
(\$M) CapEx	Prior Years	FY 2018 0.000	FY 2019 0,200	FY 2020 0.200	FY 2021 0.000	FY 2022	FY 2023	FY 2024	FY 2025	Total 0.40
ОрЕх		0.000	0.400		Market	0.000	0.000	0.000	0.000	0.400
Impact on RTB		0.000	0.160	0.400	0.000	0.000	0.000	0.000	0.000	0.80
		5.555	0.200	0.200	0.200	0.200	0.200	0.100	0.200	1.12
Indicative Pr	oject Cos	ts by Delivery	Phase	98.0		0.81				Total d
(SMI) CapEx		Start-up		0.050		D & I 0.350		Closure		Total
ОрЕх		0.010					-		NA.	0,40
JPCX		0.010		0.135		0.650		0.0	005	0.800

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FY18 - Investment Request Summaries - IRSs - IS Tools

Project Bei	nents - Type i d	only							
(\$M)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Type I - CapEx									0.000
Type I - OpEx	THE RESERVE AND ADDRESS.			MATERIAL VALUE OF LICE					0.000
Revenue									0.000
Generation									0.000

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers - why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy. The impacts of these tools for the Customer are based on a number of areas:

- · Improves reliability and productivity
- Support Jurisdictional and business function initiatives
- . Enables a better Customer Experience

Employees will be able to use an application with more functionality in a more intuitive manner. The Jurisdiction and business function will be able to utilize a more reliable and resilient application, that will help to provide customers with more options when interacting with the Company.

Additionly benefits enables improved productivity, efficiency and quality within IS projects. Enabling reduced IS costs for project delivery and higher quality. Supports standard ration and automation of processes used to drive Enterprise Architecture Planning and Governance,

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.800	-24 4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cast	0.400	-11.2%	0
Revenue Generation (annual)		6.2%	0	RTB Efficiency	280,000 %	-22.5%	-2.025
Financial Control	does not apply	6.2%	0	Union/Labor Relations	does not apply	-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Medium	-10.6%	-0.318
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	Medium	-6.6%	-0.198
Process & Personal Safety	does not apply	19.4%	0	Change Management Effort	Medium	-14.9%	-0.447
Reliability	Medium	10.9%	0.327				
Customer & Community Responsiveness	Low	5.3%	0.053				
Employee Satisfaction	Medium	4.6%	0.138				
Mitigates a Corporate Risk / Risk of not Doing	Medium=16 to 39	8.9%	0.267				
Jurisdictional Engagement	High	8.2%	1				
	Benej	fit Score:	1.56		Cas	t Score:	-5.30

Overall Priority Score:

Investment Risk and Complexity

Project Risk Score:	31	Risk Score Description: Risk Impact = 3 and Risk Ukelihood = 7 Reliability 3 less than 100 employess affected up to week, likely in next year (7)	
Project Complexity Score::	11	Project Complexity Score Description:	
	181	My I was a min was any	

Key Risks Description: Provide detail on project risks & mitigation strategy:

Now that customers are demanding new services, without these investments in our underlying technology infrastructure, we cannot deliver these new strategic programs.

IS Project Dependencies If you don't see a project in the drop-down please contact the Planning & Performance team.

Benefiting Operating Companies: Check all that apply

IS Projects: 4513 - IS Tools

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FY18 -	Investment	Request	Summaries -	- IRSe -	IS Tool

1			WATER TO SERVICE TO THE PARTY OF THE PARTY O	1 -		Attacnm
1. Has a	dependency on IS Project;			Select Select	All Companies Clear All Car All Gas Select All	
2. Has a	dependency on 15 Project;			Gen	- Scientiful	Electric Selectric
3. Has a	dependency on IS Project;			⊘ Natio	nal Grid USA Parent	
					an Energy Development Corp.	oration
4. Has a	dependency on IS Project;				an Services Inc.	
5. Has a	dependency on IS Project;				an Energy Corp	
6. Has a	dependency on IS Project;			₩ KeySp	an Energy Delivery New York an Energy Delivery Long Island	4
	acpenatney on 13 (10)cci,			₹ KeySp	an Generation LLC (PSA)	4
Rusiness Initis	ative Dependencies				an Glenwood Energy Center	
				✓ KeySp	an Port Jefferson Energy Cente	er .
IS Projects: 4513 - 1	dependency on Biz Initiative,				an Energy Trading Svc LLC a Mohawk Power Corp- Electr	de Distribution
1. Has a	acpetacitey on oil intidage,				a Mohawk Power Corp - Gas	ic distribution
2. Has a	dependency on Biz Initiative,			✓ Niagar	a Mohawk Power Corp - Trans	mission
z. nos u					chusetts Electric Company	
3. Has a	dependency on Blz Initiative,				chusetts Electric Company - Tr cket Electric Company	ansmission
	dependency on Biz Initiative,				cket Electric Company 1 Gas Company	
4. Has a					al Gas Company	
				40"	ansett Gas Company	
Project Relation	onships				ansett Electric Company	
(1) Adv	Project Relationship				ansett Electric Company - Tran	
Minor Works					ngland Power Company - Tran	smission
Related Projects:					ngland Hydro - Trans Corp	
					ngland Electric Trans Corp G LP Regulated Entity	
				M NG LN	5 LP Regulated Entity	
Enabling IS Ca	pabilities check all that apply					
	ntent Management (ECM)		□ Enterpr	ise Mahilitu		
	re Integration Services (CIS)			ng and Analytics		
Hybrid Cloud	a strong who is an oracle falloy		Networ			
☐ Next Gen Wor	rkplace		- 10211001			
	.,					
Key Milestone	Dates: Select the 1st, 15th or last d	lay of the mont	h			
		Begin				
Begin		lopment &	Begin			
Start-up	Requirements & Deign Imple	mentation	User Acceptance Testing	Go Live	Project Completion	Project Closure
April, 2017				March, 2018		
Business Resor	urce Estimates: # of Full Time Equ	ivalents				
Start-up	Requirements & Deign Develop	& Implement	Business Resources UAT	Go Live Readiness	Post Go Liv	e Support
0	0	0	0	0	0	
Resourcing Strategy:						
	ourced using Solution Delivery Centre (S	DC) partners, S	ystems integrator and IS reso	urces.		
Attached Sun	porting Documents	<u>-</u>				
accounted sup	harring paramettes					
Recommendat	ion Sign-off					
Role	Name			Title		Date

Niagara Mohawk Power Corporation d/b/a National Grid Case No. 17-E-0238 and 17-G-0239 Attachment 7 to DPS 275 IS-4

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FY18 - Investment Request Summaries - IRSs - IS Tools

Business Project Sponsor	John Gilbert	Global Head of IS Service Delivery	
Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
		national g	rid

Attachment 7 to DPS 275 IS-4 Page 33 of 68



Planning & Performance Management • FY18 - Investment Request Summaries - IRSs: US SAP: Enhancement Pack 9 Upgrade





Investment Request Summary - IS US FISCAL YEAR 2018 national grid INV ID: 4564 Project Name: US SAP: Enhancement Pack 9 Upgrade Program Sponsor: Doneen Hobbs Title: VP US Shared Services Title: Relationship Manager Relationship Manager: Joel Semel Prog Delivery Title: Director, Portfolio SAP Enterprise Samir Parikh Manager: Paper Author: Ella Weisbord Title: Business Consultant IS Roadmap Category: **Enterprise SAP** Business Area: US F,SS&C Portfolio: Other Category: Policy Driven Primary Policy Driver: Reliability Region: US In-Flight Project? Medium Growth Playbook Project? Shaping Our Future Project? Energy Efficiency Project? Project Description: The context for the project with background information The SAP Enhancement pack upgrade is an investment to provide for the upgrade of the core SAP application every two years (biennially) excluding the upgrade work associated with the annual HR service pack which is accounted for under a separate mandatory annual investment. The project would apply the latest agreed SAP service packs for ECC, SRM, PI, Portal, BPC and SolMan to ensure that the SAP application stays within current vendor support and mitigates the risk of system failure by remaining current every two years on the SAP core application. The investment would only include the upgrade packs (non HR) which are supplied by the SAP and would exclude any discretionary enhancements as part of this upgrade or any upgrades associated with ancillary USFP systems (ex. PowerPlan, uPerform, OpenText, SABRIX). The investment would also not account for any upgrade work which may be required on the BI/BW SAP platform. This biennial patching/upgrade strategy is to ensure that National Grid applies the latest service packs every two year in order to ensure proper system operation and application maintenance support. Project Rationale: Highlight business challenge, capability or process the project addresses Periodic upgrades and solution updates to maintain currency and supportability Project Scope: Explain what is in scope and what is not in scope for the project Included in scope: - Upgrade core SAP application. The project would apply the latest agreed SAP service packs for ECC, SRM, PI, Portal, BPC and SolMan to ensure that the SAP application stays within current vendor support and mitigates the risk of system failure by remaining current every two years on the SAP core application - Automated Testing and Autometed Performance Testing (including LoadRunner licenses) Excluded from scope: upgrade work associated with annual HR Service pack Project Dependencies: Identify any core program or project dependencies, please include INVP numbers if known INVP4348 - US SAP Infrastructure Landscape In addition, the unknown impact from Enterprise Wide Program: - Shaping The Future (Supply Chain Transformation Program) - Gas Enablement - HR Simplification Program RTB cost is based on assumption that additional functionality can be added and would reguire Application Maintenance support **Indicative Project Costs by Fiscal Year** FY 2025 FY 2018 FY 2019 FY 2020 FY 2021 FY 2022 FY 2023 FY 2024 (\$M) **Prior Years** СарЕх 5.328 8.821 3.493 ОрЕх 2.427 0.592 3.019 Impact on RTB 0.178 0.178 0.178 0.534

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FY18 - Investment Request Summaries - IRSs - US SAP: Enhancement Pack 9 Upgrade

(SM)	Start-up		R&D D&I			Closure		Total		
СарЕх				2 901		5.920			8.821	
OpEx	1.184		1.243				.592		3 019	
Project Ben	efits - Type I	only								
(SM)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total	
Туре I - СарЕх					EHOMI S-				0.000	
Type I - OpEx					Signature of the second				0.000	

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy.

More reliable procurement, vendor management, inventory management, general ledger, financial reporting, system monitoring, and interface integration, closing and business reporting processes. More stable and reliable core SAP solution, reduced OSS messages and associated OSS note patches, opportunity for the elimination of custom code included in upgrade pack and faster SAP vendor resolution times for production problems and situations.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	3.019	-24.4%	-2.196
CapEx Annual Savings		5.1%	0	CopEx Cost	8.821	-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	14.125 %	-22.5%	-2.025
Financial Control	Low	6.2%	0.062	Union/Labor Relations	does not apply	-9.8%	0
Soft Financial Benefits	Medium	3.8%	0.114	Dependencies	does not apply	-10.6%	0
Regulatory Impact	Medium	11.2%	0.336	Elapse Time Duration	Medium	-6.6%	-0.198
Process & Personal Safety	Low	19.4%	0.194	Change Management Effort	does not apply	-14 9%	0
Reliability	High	10.9%	0.981				
Customer & Community Responsiveness	does not apply	5.3%	o				
Emplayee Satisfaction	High	4.6%	0.414				
Mitigates a Corporate Risk / Risk of not Doing	High≖ 40 or more	8.9%	0.801	(10) India (10) Vision (10) Vi			
Jurisdictional Engagement	High	8.2%	1				
	Benej	fit Score:	3.64		Cos	t Score:	-5.43

Overall Priority Score: -1.787

Investment	Risk	and	Comi	olexity	ı

Project Risk Score:	42	Risk Score Description: Based on Risk Scoring GuidekineL Financial Impact Score: 6 (\$10-40M) / Likelihood of Failure: 7 (Likelihood score (50% chance within 2 years)
Project Complexity Score.:	26	Project Complexity Score Description: Project Cost: 6 (>=\$5), Project Duration 1, Project Delivery 6, Process Impact 6, External Impact 4, Dependencies 2, Innovation: 1

Key Risks Description: Provide detail on project risks & mitigation strategy:

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O sourcing Strategy:	orting Documents								
0									
	0	0	0	0	0				
Start-up		evelop & Implement	Business Resources UAT	Go Live Readiness	Post Go Live Support				
Business Resour	ce Estimates: # of Full Ti	ne Equivalents							
April, 2017				March, 2019					
Begin Start-up	Begin Requirements & Deign	Begin Development & Implementation	Begin User Acceptance Testing	Go Live	Project Completion Project Closure				
(ey Milestone D	ates: Select the 1st, 15th o	or last day of the mont	h						
Next Gen Workp	lace		- Netwo	rks .					
 Comprehensive Hybrid Cloud 	Integration Services (CIS)		□ Reporti	ng and Analytics					
	nt Management (ECM)		•	rise Mobility					
Enabling IS Capa	bilities check all that appl	/							
				⇒ NG LNC	our regulated entity				
ated Projects:				✓ New En	ngland Electric Trans Corp 5 LP Regulated Entity				
Minor Works	Project Relationship: Standalone Project				ngland Power Company - Transmission ngland Hydro - Trans Corp				
Project Relation					ansett Electric Company - Transmission agland Power Company - Transmission				
				✓ Narraga	ansett Gas Company ansett Electric Company				
Has a	dependency on Biz Initio	itive,		2 Colonia	ll Gas Company				
Has a	dependency on Biz Initio	itive,			ket Electric Company Gas Company				
Has a	de en de en en Ble build	-41		Massac	:husetts Electric Company - Transmission				
	dependency on Biz Initio	itive,			a Mohawk Power Corp - Transmission Chusetts Electric Company				
Has a	dependency on Biz Initio	itive,			Mohawk Power Corp - Gas				
Projects: 4564 - US	SAP: Enhancement Pack 9 Up	grade			Mohawk Power Corp- Electric Distribution				
Business Initiati	ve Dependencies				KeySpan Generation LLC (PSA) KeySpan Glenwood Energy Center KeySpan Port Jefferson Energy Center KeySpan Energy Trading Svc LLC				
rius u	dependency on IS Proje	.45							
Has a		20			n Energy Delivery Long Island				
Has a	dependency on IS Proje				n Energy Corp In Energy Delivery New York				
Has o	dependency on IS Proje	rt.			on Services Inc.				
Has a	dependency on IS Proje	ct;			al Grid USA Parent on Energy Development Corporation				
Hos a	dependency on IS Proje			Gen					
	dependency on IS Proje	ct; 4348 - US SAP Appl	cation Asset Health	□ Select	Selectivity Circuit				
Has a Upstream					All Companies				

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FY18 - Investment Request Summaries - IRSs - US SAP: Enhancement Pack 9 Upgrade

•	10 01 0 270 10 4
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Role	Name	Title	Date
Business Project Sponsor	Doneen Hobbs	VP US Shared Services	
Business Relationship Manager	Joel Semel	IS Business Relationship Manager	
IS Program Delivery Manager	Samir Parikh	IS Program Delivery Manager	

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Planning & Performance Management > FY18 - Investment Request Summaries - IRSs: US Service Desk Improvements





national grid				st Summary - I				
V ID:		ame: US Service L	Pesk Improveme	nts				
ogram:	US IS							
onsor:	iohn Gilbert		Title: G	lobal Head of IS Service	Delivery			
lationship Manager:	Bill Kearns		Title: 19	relationship manager	Corporate functions			
ng Delivery anager:	Richard Pedley		Title; C	orporate IS PDM				
per Author:	Nicola Pennington / Stev	ve Trezza	Title: 8	usiness Consultant - Co	porate IS / Service Str	ategy		
Roadmap Category:	IS Assurance		Business	Area: Corporate IS	Portfolio:	US IS		
In-Efight Project?	nvest High	Category: F	Policy Driven	Primary Policy	Driver: Reliability	Reg	ion: US	
Growth Playbook Pro	iject? Shaping Our	r Future Project?	Energy Efficiency	Project?				
	the context for the project its to SMI (Service Manage			of channels available fo	or contacting help desi	k and resolving Issues.		
Annual platform upgr - to support new fur - supportable plafor	nctionality							
Orive down calls to th								
Open up utilasation o	f other channels of engag	gement						
- CMDB (service wa - Supplier operation - Project and portfol	lio management now with other systems to			al improvements in SMI	processes and wider	automation. Such as:		
	nctionality hillight business challenge, e support processes are es							
his investment will c	ontinue the work started	and provide National	Grid with fit for pu	pose, stable, Service De	elivery processes supp	orted by a strategic to	olset.	
mproving the underlexperience.	ying toolset and bringing a	all Service Desk techn	ology up to the san	e standard will improve	the SMI processes fu	rther and enhance the	e business u	ser
	n what is in scope and who the identified functionality		he project					
roject Dependencies annot start until Ser	: Identify any core program vice Now Release 2 comp	m or project depende letes	ncies, please includ	: INVP numbers if know	n			
lasic Project Assump Assumes that Service	tions: Now release 2 has been o	completed in FY17						
Project costs compile	d using estimates provide	d by the suppliers, to	gether with estimat	ed National Grid resour	ce costs based upon a	project plan.		
he project costs will	be split equally between	the UK and the US sin	ce each region will	benefit equally.				
idicative Projec	t Costs by Fiscal Ye	ear						
(\$M) Prior	Years FY 2018	FY 2019 F	Y 2020 FY 2	021 FY 2022	FY 2023	FY 2024 FY 2		Total

Case No. 17-E-0238 and 17-G-0239 Attachment 7 to DPS 275 IS-4

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FY18 - Investment Request Summaries - IRSs - US Service Desk Improvements

ОрЕх		0,600	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.640
Impact on RTB		0.100	0.150	0.150	0.150	0.150	0.150	0.150	0.150	1.150
Indicative P	roject Costs	by Delivery	Phase							
(\$M)	Sta	rt-up		R & D		0&1		Closure		Total
СарЕх				0.900		2.500				3.400
ОрЕх		0.020		0.100		0.500	,	0	020	0.640
Project Bene	efits - Type I	only								
(SM)	FY 2018	FY 2019	FY 2020	FY 2021	FY 20	022 FY	2023	Y 2024	FY 2025	Total
Type I - CapEx			in.							0.000
Type I - OpEx										0.000
Revenue			1							

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers – why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy.

Stable IS support processes have a direct impact on the ability of the National grid business to run reliable and productive processes.

Improves reliability of support processes, improving management of IS related Issues will reduce "down time" and therefore improve business productivity.

The need to provide a single consistent process and user experience.

Investment Prioritization

Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score
OpEx Annual Savings		10.3%	0	OpEx Cost	0.640	-24,4%	-2.196
CapEx Annual Savings		5.1%	0	CapEx Cost	3.400	-11.2%	-1
Revenue Generation (annual)		6.2%	0	RTB Efficiency	30.882	% -22.5%	-2.025
Financial Control	Low	6.2%	0.062	Union/Labor Relations	Low	-9.8%	0
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Medium	-10.6%	-0.318
Regulatory Impact	does not apply	11.2%	0	Elapse Time Duration	High	-6.6%	-0.594
Process & Personal Safety	Low	19.4%	0.194	Change Management Effort	Medium	-14.9%	-0.447
Reliability	Medium	10.9%	0.327				
Customer & Community Responsiveness	Medium	5.3%	0.159				
Employee Satisfaction	Medium	4.6%	0.138				
Mitigates a Corporate Risk / Risk of not Doing	Medium=16 to 39	8.9%	0.267				
Jurisdictional Engagement	High	8.2%	1				
	Benej	fit Score:	1.92			Cost Score:	-6.69

Overall Priority Score:

Investment Risk and Complexity

A STATE OF THE STA

Key Risks Description: Provide detail on project risks & mitigation strategy:

Schedule delay due to dependency on Release 2 deployment or reliance on end user resources for key activities.

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iS Project Dep	pendencies Wyou don't see & p	roject in the drop-down please o	contact the Planning & Performance t	Benefitin	g Operating Compar	Ties: Check all that app
Projects: 4261 - L	IS Service Desk Improvements				Companies 🔲 Clear All Co	ompanies
Has a	dependency on IS Pri	oject;		Gen Select All	Gas Select All E	lectric Selec
Has a	dependency on IS Pro	piect:		ue"		
					Grid USA Parent	
Has a	dependency on IS Pro	oject;			nergy Development Corpor	ration
Has a	dependency on IS Pro	oject;		KeySpan E		
Has a	dependency on IS Pro	niect			nergy Delivery New York	
					nergy Delivery Long Island	
Hasa	dependency on IS Pro	oject;			Generation LLC (PSA) Glenwood Energy Center	
					denwood Energy Center Fort Jefferson Energy Center	
Business Initia	ative Dependencies				nergy Trading Svc LLC	
Projects: 4261 - 1	US Service Desk Improvement	5			ohawk Power Corp- Electric	Distribution
Has a	dependency on Biz In	ltiative,			ohawk Power Corp - Gas	
	danas das as sa Ris ta	data atua			ohawk Power Corp - Transn setts Electric Company	nission
Has a	dependency on Biz In	папуе,		No.	setts Electric Company setts Electric Company - Tra	nsmission
	dependency on Biz In	itiative,			Electric Company	
Has a				Boston Ga		
Has a	dependency on Biz In	itlative,		Colonial G		
					ett Gas Company ett Electric Company	
Project Relati	onshins				ett Electric Company - Trans	smission
	Project Relationship:				and Power Company - Trans	
Minor Works	, , , , , , , , , , , , , , , , , , , ,				and Hydro • Trans Corp	
lated Projects:					and Electric Trans Corp	
				MG LNG LI	Regulated Entity	
Enabling IS Ca	pabilities check all that an	ply				
	apabilities check all that ap	ply	□ Faternr.	se Mability		
☐ Enterprise Co	ontent Management (ECM)	ply	□ Enterpr			
Enterprise Co	ontent Management (ECM) ive Integration Services (CIS)	ply		g and Analytics		
☐ Enterprise Co ☐ Comprehense ☐ Hybrid Cloud	ontent Management (ECM) ive Integration Services (CIS)	ply	☐ Reportin	g and Analytics		
Enterprise Co	ontent Management (ECM) ive Integration Services (CIS)	ply	☐ Reportin	g and Analytics		
Enterprise Co Comprehensi Hybrid Cloud Next Gen Wo	ontent Management (ECM) ive Integration Services (CIS)		☐ Reportin	g and Analytics		
Enterprise Co Comprehensi Hybrid Cloud Next Gen Wo	ontent Management (ECM) ive Integration Services (CIS) brkplace	h or last day of the mont	☐ Reportin	g and Analytics		
Enterprise Co Comprehensi Hybrid Cloud Next Gen Wo Key Milestone Begin	ontent Management (ECM) ive integration Services (CIS) orkplace e Dates: Select the 1st, 15t Begin	h or last day of the mont <i>Begin</i> Development &	☐ Reportin ☐ Networ	g and Analytics ks		
Enterprise Co Comprehensi Hybrid Cloud Next Gen Wo Key Milestone Begin Start-up	ontent Management (ECM) ive Integration Services (CIS) orkplace e Dates: Select the 1st, 15t	h or last day of the mont Begin	Reporting Network	g and Analytics ks Go Live	Project Completion	Project Closure
Enterprise Co Comprehensi Hybrid Cloud Next Gen Wo Key Milestone	ontent Management (ECM) ive integration Services (CIS) orkplace e Dates: Select the 1st, 15t Begin	h or last day of the mont <i>Begin</i> Development &	☐ Reportin ☐ Networ	g and Analytics ks	Project Completion March, 2020	Project Closure
Enterprise Co Comprehensi Hybrid Cloud Next Gen Wo Key Milestone Begin Start-up July, 2017	ontent Management (ECM) ive Integration Services (CIS) erkplace e Dates: Select the 1st, 15t Begin Requirements & Deign	h or last day of the mont Begin Development & Implementation	☐ Reportin ☐ Networ	g and Analytics ks Go Live		Project Closure
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Recommendation Sign-	-off
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Role	Name	Title	Date
Business Project Sponsor	John Gilbert	Global Head of IS Service Delivery	
Business Relationship Manager	Bill Kearns	IS Business Relationship Manager	
IS Program Delivery Manager	Richard Pedley	IS Program Delivery Manager	

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CapEx 0.000 0.000 2.000 0.000 <th< th=""><th></th><th>2018</th><th>CAL YEAR</th><th>IS FIS</th><th>mary - IS t</th><th>quest Sum</th><th>stment Re</th><th>Inve</th><th></th><th></th><th>nationalgrid</th></th<>		2018	CAL YEAR	IS FIS	mary - IS t	quest Sum	stment Re	Inve			national grid
An Gilbert Title: Global Hand IS Service Delivery, Clobal IS relationship Manager. Global TS rep Delivery Tem Cunningham Title: IS Relationship Manager. Global TS rep Delivery Tem Cunningham Title: IS Relationship Manager. Global TS Trace I: Head of Programme Delivery, Clobal IS Immosper: The Cunningham Title: Business Constraint - Cuprorite IS Readmap Coregory: S Assurance Business Area: Corporate IS Readmap Coregory: S Assurance Business Area: Corporate IS Readmap Coregory: S Assurance Business Area: Corporate IS Primary Policy Diver: Reliability Region: US Growth Physopock Project? Shaping Our Future Project? Shaping Our Future Project? Energy Efficiency Project? Energy Efficiency Project Object With Interest	100 (C)						e Projects	e: FY20 Edg	Project Name	4720	VV ID:
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Title: Head of Programme Delivery, Global 5 Transper Author: Nicola Pennington / Steve Trezzo Title: Business Constant - Corporate IS Portfolio: 15 for IS Randman Category: S Assurance Business Avea Corporate IS Portfolio: 15 for IS Region: US Regi				ry, Global IS	l IS Service Delive	itle: Global Head	T			John Gilbert	ponsor:
Title: Business Constituen - Corporate IS Readmap Caregory: Micola Pennington / Sieve Tresta Title: Business Constituen - Corporate IS Readmap Caregory: Intest Classification: Medium Caregory: Policy Driven Primary Policy Driven: Reliability Region: US Growth Phybook Project? Shaping Our Future Project? Energy Efficiency Project Policy Driven Project Policy Driven Project Policy Driven Project Policy Driven Project? Shaping Our Future Project? Project Description: The context for the project with background Information as we use more Colub based services that dictate the pace of change we will need new capability to manage this impact on National Grid. This includes services to manage the change as well as reducing complexity in estate to reduce impact of changes. As we now to any device working in the cloud our focus will change from end points and applications to data and the need to protect the data regardless of where it resid. We will within the period still predominately provide end user devices to employees. Reacting to the merging of mobile and PC world's we will need to refresh and manage existing devices in new ways. Project Reationale: Highlighit business challenge, capability or process the project addresses This projects will provide new services and future projects to build a foundation that will enable or support the Utility of the Future. As customers demand new services, as a smart metering and distributed generation, an Investment in our underlying technology infrastructure is needed in order to deliver these strategic programs. Project Scope: Explain what is in scope and what is not in scope for the project As we move to any device working in the cloud our focus will change from end points and applications to data and the need to protect the data regardless of where it resid. Besic Project Assumptions: This multi-year investment addresses is health and capability challenges while enabling National Grid's strategic business objectives. Indicative Project Costs by Delivery Pha				bal IS	hip Manager, Glo	itle: IS Relations	1			Graham Pool	elationship Manager:
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There are no dependencies for this project to start. Work is dependent the effort completed in FY19. **Basic Project Assumptions:** This multi-year investment addresses IS health and capability challenges while enabling National Grid's strategic business objectives. **Project Costs by Fiscal Year** [SM] Prior Years FY 2018 FY 2019 FY 2020 FY 2021 FY 2022 FY 2023 FY 2024 FY 2025 Tolera 0.000 0.00	resides.	IDIESS OF MUSICAL	ect the data rego	ne need to prote	ions to data and t	этсэ ано аррксас	inge nom ena pi	locus will cita	the cloud out	carce working in	AS WE MOVE to any of
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0.140 1.070 1,270 0.020 Project Benefits - Type I only FY 2018 (SM) FY 2019 FY 2020 FY 2021 FY 2022 FY 2023 FY 2024 FY 2025 Total Type I - CapEx 0.000 Type I - OpEx 0.000 Revenue 0.000 Generation

Key Business Benefits:

Describe benefits, both financial and non-financial, and when those benefits will be delivered. Provide a clear & concise business case stating the investment drivers — why do we need to do something and why now? Explain any Regulatory considerations and how this initiative aligns with the US Business Strategy.

The impacts of this project on the Customer are based on a number of areas:

- Improves reliability and productivity
- . Support Jurisdictional and business function initiatives
- Enables a better Customer Experience

There is a risk of failure of unsupported platforms and the fact that many of these systems support key company operations. Thus, our ability to continue to provide safe and reliable service to our customers would be impacted if one of these systems were to fall.

Investment Prioritization

Employee Satisfaction	Medium Medium Medium = 40 or more High	10.9% 5.3% 4.6% 8.9% 8.2%	0.327 0.159 0.138 0.801				
Employee Satisfaction	Medium Medium	5.3% 4.6%	0.159 0.138				
	Medium	5.3%	0.159				
Customer & Community Responsiveness							
	Medium	10.9%	0.327				
Reliability							
Process & Personal Safety doe	s not apply	19.4%	0	Change Management Effort	Medium	-14.9%	-0.447
Regulatory Impact	Low	11.2%	0.112	Elapse Time Duration	High	-6.6%	-0.594
Soft Financial Benefits	Low	3.8%	0.038	Dependencies	Medium	-10.6%	-0.318
Financial Control	Low	6.2%	0.062	Union/Labor Relations	Low	-9.8%	0
Revenue Generation (annual)		6.2%	0	RTB Efficiency	0.000	4 -22.5%	0
CapEx Annual Savings		5.1%	0	CapEx Cast	2.000	-11.2%	-1
OpEx Annual Savings		10.3%	0	OpEx Cost	1.270	-24.4%	-2.196
Benefits	Impact	Weight	Score	Cost	Impact	Weight	Score

Overall Priority Score: -2.286

Investment Risk and Complexity

Project Risk Score:	41	Risk Score Description: Reliability - 5, likelihood 6
Project Complexity Score::	71	Project Complexity Score Description:
	21	
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Key Risks Description: Provide detail on project risks & mitigation strategy:

There is a risk of failure of these unsupported platforms, as the fact that many of these systems support key company operations. Thus, our ability to continue to provide safe and reliable service would be impacted if one of these systems were to fail.

Now that customers are demanding new services, without this investment of upgrading our underlying technology infrastructure, we cannot deliver these new strategic programs.

IS Project Dependencies if you don't see a project in the drop-down please contact the Planning & Performance team.

Benefiting Operating Companies: Check all that apply

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Recommendation Sign-off

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Role	Name	Title	Date
Business Project Sponsor	John Gilbert	Global Head IS Service Delivery, Global IS	
Business Relationship Manager	Graham Pool	IS Business Relationship Manager	
IS Program Delivery Manager	Tom Cunningham	IS Program Delivery Manager	
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