Corporate Shared Services Project Authorization Form

Date Prepared: January 8, 2018	Project Title: 2018 Win10 PC Lifecycle Program – Phase 2 PC Deployment
Company/Companies: 06:PSNH-Distribution 11:CL+P-Distribution 21:NSTAR Electric-Distribution 2Y:NSTAR Gas 41:WMECO-Distribution 61:Eversource Service 71:Yankee Gas Services Co 1T:CL+P-Transmission 6T:PSNH-Transmission 4T:WMECO-Transmission	Project ID Number: Power Plan Parent ID for the PC Lifecycle: IT18401
Organization: IT	Plant Class/(F.P.Type): Hardware
Project Initiator: [redacted]	Project Type: *Annual*
Project Manager: [redacted]	Capital Investment Part of Original Operating Plan? Y
Project Sponsor: [redacted]	Transfer of Budgets Request: N
Estimated in service date(s): Varies by effort throughout 2018	Emergency Related Request: N
Total Capital Request: 7,421,457 Total Funding Request: 7,421,457	Software Projects Only – Estimated Life of Asset: __X__ 5 years ____ 10 Years ____15 Years

Project Authorization

Project Authorization Forms must be completed for Corporate Shared Services projects totaling $500K or greater in accordance with the Project Authorization Policy and approval levels in the Delegation of Authority Policy (DOA).

If Subsidiary Board approval is required (Corporate Shared Services capital projects > $15M), document the review by Enterprise Risk Management (ERM) and Financial Planning and Analysis (FP&A) (attach email approval).

ERM: N/A

FP&A: N/A

If this is a Transfer of Budgets Request Vice President of Financial Planning and Analysis approval is required. If the Vice President of Financial Planning and Analysis deems appropriate, additional approvals may also be required (see page 7 of the Project Authorization Policy – Project Approval is not Transferable for further detail):

Date of Approval

VP of FP&A: N/A

Other: N/A

Documentation/Explanation: N/A

Executive Summary

(If related to an Emergency Request – please provide specific details of emergency situation and operational impacts to business and/or customer.)

The Eversource Information Technology (IT) End User Computer (EUC) department maintains various Desktop PC, Laptop PCs, Rugged PCs equipment, which provide various terms of operational service. As these devices near or exceed their End-of-Life, functional efficiency, or supportability, it is prudent to replace these devices. The objective of this project to fund the replacement of this equipment to maintain a computing environment with PCs that support a 5-year warranty period. In 2017 4000 of the 7500 PCs end of life PCs were purchased, 2018 program is for the remaining 3500.

Project Costs Summary

See APS3 and APS8 requirements and consult with Plant Accounting for capital/O&M determination. Use published loaders for benefits, materials, and invoices, maintained by the Director, Budget and Financial Analysis.

Note: Dollar values are in whole dollars:

	Year 2018	Year 2019	Year 2020+	Totals
Capital Additions - Direct	$ 7,282,320	$ -	$ -	$ 7,282,320
Capital Additions - Indirect	$ 59,137	$ -	$ -	$ 59,137
Removals net of salvage 1%	$ 80,000	$ -	$ -	$ 80,000
Subtotal Request	$ 7,421,457	$ -	$ -	$ 7,421,457
O&M	$ -	$ -	$ -	$ -
Total Request	**$ 7,421,457**	**$ -**	**$ -**	**$ 7,421,457**

Financial Evaluation

Provide the following financial information (provide additional detail if summarized items are significant, additional information is needed or there are unique payment provisions).

Note: Dollar values are in whole dollars:

Direct Capital Costs	Year 2018	Year 2019	Year 2020 +	Total
Straight Time Labor	$ 63,548	$ -	$ -	$ 63,548
Overtime	$ -	$ -	$ -	$ -
Outside Services/Consultants	$ 1,662,363	$ -	$ -	$ 1,662,363
Software	$ -	$ -	$ -	$ -
Hardware	$ 5,636,409	$ -	$ -	$ 5,636,409
Materials	$ -	$ -	$ -	$ -
Other, including contingency amounts (Describe) Contingency 2%	$ -	$ -	$ -	$ -
Total Direct Capital Costs	**$ 7,362,320**	**$ -**	**$ -**	**$ 7,362,320**

Indirect Capital Costs	Year 2018	Year 2019	Year 2020 +	Total
Indirects/Overheads (including benefits)	**$ 59,137**	**$ -**	**$ -**	**$ 59,137**
Capitalized interest or AFUDC , if any	-	-	-	-
Total Indirect Capital Costs	**$ 59,137**	**$ -**	**$ -**	**$ 59,137**
Total Capital Costs	**$ 7,421,457**	**$ -**	**$ -**	**$ 7,421,457**
Total O&M Costs	**$ -**	**$ -**	**$ -**	**$ -**
Total Project Costs	**$ 7,421,457**	**$ -**	**$ -**	**$ 7,421,457**
Vendor software payments (indicate whether or not included in the above)*	$ -	$ -	$ -	$ -

*Accounting for vendor software payments for SaaS/Cloud or other agreements involving the right to use software is to be determined by a separate analysis, which is included in Appendix 3, page 7.

By Company Summary:

Note: Dollar values are in whole dollars:

	2Y:NSTAR Gas	21:NSTAR Electric-Distribution	06:PSNH-Distribution	61: Eversource Service	11:CL+P-Distribution	41:WMECO-Distribution
Capital Additions - Direct	$ 218,292	$ 654,877	$ 1,036,454	$ 2,289,582	$ 1,946,697	$ 291,785
Capital Additions - Indirect	$ 2,819	$ 8,456	$ 7,740	$ 17,098	$ 14,537	$ 2,179
Removals net of salvage 1%*	$ 2,065	$ 6,194	$ 11,602	$ 25,629	$ 21,790	$ 3,266
Subtotal Request	$ 223,176	$ 669,528	$ 1,055,795	$ 2,332,308	$ 1,983,025	$ 297,230
O&M	$ -	$ -	$ -	$ -	$ -	$ -
Total Request	**$ 223,176**	**$ 669,528**	**$ 1,055,795**	**$ 2,332,308**	**$ 1,983,025**	**$ 297,230**

	71:Yankee Gas Services Co	1T-CT-Transmission	6T-NH-Transmission	4T-WM-Transmission	Totals
Capital Additions - Direct	$ 726,891	$ 53,519	$ 32,111	$ 32,111	$ 7,282,319
Capital Additions - Indirect	$ 5,428	$ 401	$ 240	$ 240	$ 59,138
Removals net of salvage 1%*	$ 8,136	$ 599	$ 359	$ 359	$ 80,000
Subtotal Request	$ 740,456	$ 54,519	$ 32,710	$ 32,710	$ 7,421,457
O&M	$ -	$ -	$ -	$ -	$ -
Total Request	**$ 740,456**	**$ 54,519**	**$ 32,710**	**$ 32,710**	**$ 7,421,457**

*Removals of net salvage is associated with the cost of the disposal of the old PC Computers

Overall Justification:

Project Need Statement *(Description of Issue)*

Sixty percent of Eversource's 10,000 PC's will be at the End-of-Life by the end of 2018. They cannot be upgraded to the newer Windows 10 Operating System, due to hardware and driver software incompatibilities. The older Eversource PCs must be replaced with newer PCs running the Windows 10 OS to avoid issues of security vulnerabilities, availability problems, and complex and time-consuming support issues.

Project Scope

The scope of the 2018 Infrastructure Life Cycle PC replacement program will be to replace approximately 7,500 end of life PCs at Eversource. In 2017 approximately 4000 of the 7500 end of life PCs were purchased. The remaining 3500 PCs will be purchased as part of this 2018 Win10 PC Lifecycle Program initiative.

As of December 2017, approximately 3600 are in inventory and approximately 400 PCs are already deployed. Approximately 3500 PCs will be purchased as part of this project.

Project Objectives

The objective of this project to fund the replacement of Eversource End-of-Life PCs, with a target of replacing approximately 600 PCs each month from January 2018 to November 2018.

Add approximately 10 Riverbed System Center Configuration Manager servers to the Eastern Massachusetts area to support the rollout and ongoing support of the Windows 10 PC systems

Background / Justification

Mainstream support for Windows 7 Operating System (OS) concluded on Jan 13, 2015. Extended support for Windows 7 OS ends in January 14, 2020. Starting in 2018, PC manufacturers will not develop Windows 7 drivers for new PC's. The Eversource PCs must be upgraded. The older Eversource PCs must be replaced with newer PCs running the Windows 10 OS to avoid issues ranging from security vulnerabilities, availability problems, and complex and time-consuming support issues.

An automated Windows 10 Image Build process, developed in 2017, delivers an Eversource Windows 10 image on the new Lenovo PCs. An orientation class that enables the employee to setup and test their Windows 10 PC functionality during the PC restore process, is an integral part of the deployment. The automated image backup, restore, and orientation class, reduces the PC deployment time by 50%

Business Process and / or Technical Improvements: *Quantitative and qualitative project benefits, including assumptions used to estimate benefits and customer impacts; describe the changes in performance to the business process or technology performance metrics that can be expected as a result of this project*

The new PCs include the Windows 10 operating system, touch screen capabilities, biometric authentication, and security upgrades of Microsoft Bitlocker and Microsoft Defender.

The performance of the new PCs is up to 50% greater than the current PCs. The improved performance increases the worker productivity. The new PCs have improved battery life, weigh less than the current PCs, and use less energy.

Improvements to the Riverbed/Software Center Configuration Manager (SCCM) servers will make the management and distribution of software to the PCs more reliable and efficient.

Future Financial Impacts:

Provide below the estimated future costs that will result from the project:

Note: Dollar values are in whole dollars:

Future Costs	Year 2018	Year 2019	Year 2020	Year 2021+	Total Future Project Costs
Capital	$ -	$ -	$ -	$ -	$ -
O&M	-	-	-	-	-
Other	-	-	-	-	-
TOTAL	$ -	$ -	$ -	$ -	$ -

Describe the estimated future Capital, O&M (including cloud costs) and/or Other costs noted above:

There are no additional incremental O&M costs associated with the PC replacements because the costs associated with the current maintenance agreements will cover the use of the new equipment in the 2018-2022 timeframe.

What functional area(s) will these future costs be funded in? Not Applicable

A representative from the respective functional area is required to be included as a project approver.

Provide below the estimated financial benefits that will result from the project:

Note: Dollar values are in whole dollars:

Future Benefits	Year 2018	Year 2019	Year 2020	Year 2021+	Total Future Project Benefits
Capital	$ -	$ -	$ -	$ -	$ -
O&M	-	-	-	-	-
Other	-	-	-	-	-
TOTAL	$ -	$ -	$ -	$ -	$ -

Describe the estimated future Capital, O&M and/or Other benefits noted above:

Not applicable – See below

What functional area(s) will these benefits be reflected in? Not Applicable

A representative from the respective functional area is required to be included as a project approver.

What is the project's IRR? -$ 7,421,457

What is the project's NPV? -100%

What is the project's payback period? N/A

Use appropriate discount rate by company and associated corporate models (to be provided by Financial Planning and Analysis).

If the above items are not applicable, explain why (e.g., if negative but there are other reasons to proceed).

The new PCs include the State-of-the-art Windows 10 operating system, touch screen capabilities, biometric authentication, and security upgrades. The new PCs have improved battery life, improved performance weigh less, and use less energy than the current PCs. These improvements increase worker productivity.

Technology based systems have limited useful life spans. If these systems are not replaced at the end of their lifespans then they become outdated, leading to vendor support issues, degradation in performance, security vulnerabilities and outages due to equipment failure. Extending the maintenance agreements on outdated equipment will add additional Operations and Maintenance (O&M) costs to the IT budget.

This PC replacement program will replace the End-of-Life PCs containing the Windows 7 Operating system (OS) with state of the art PCs containing the Windows 10 OS. If the older windows 7 PCs containing the Windows 7 OS are replaced with newer PCs containing the Windows 10 OS then an insignificant number of PCs containing the Windows 7OS will need to be replaced when the Windows 7 OS extended support expires on January 14, 2020.

Asset Retirement Obligation (ARO) and/or Environmental Cleanup Costs (Environmental Liabilities):

An ARO is a current legal obligation to remove or retire property, plant or equipment at some point in the future. Please refer to APS8 or contact Plant Accounting for further detail.

Is there an ARO associated with this project? If yes, please provide details:

No

Are there other environmental cleanup costs associated with this project? If yes, please provide details.

Eversource pays a vendor to salvage and recycle old PCs. The cost of salvage is estimated at $80,000 for the PC to be replaced in 2018.

Alternatives Considered with Cost Estimates

If we continue to use the existing equipment, then additional O&M charges will be required to resolve the issues caused by equipment failure of the aging PCs.

Allowing the PCs to age will build up a larger volume of unsupported devices that must be replaced when the major components like the Operating Systems and software drivers become unsupported and become vulnerable to security attacks.

Project Schedule

Describe the project schedule and milestones. Include estimated start and end dates.

The Life Cycle Windows 10 Phase 2 project began deployments on October 10, 2017. The project is expected to reach a run rate of 600 PCs per month by the end of December 2017. PC deployments will continue at a rate of 600 per month in 2018, until November 2018.

The Life Cycle Windows 10 Phase 2 team meets weekly, to monitor the progress of the deployments and to determine the number of PC to order to maintain adequate inventory, for uninterrupted deployments. A graphical chart is included in the Steering Committee reports that shows the progress of the deployments compared to the initial baseline and to the deployment forecast.

The Riverbed/SCCM additions to the Eastern Massachusetts service areas are required for the deployments of the PCs in that area. These additions are scheduled to be completed by the end of the first quarter of 2018.

Regulatory Approvals

N/A

Risks and Risk Mitigation Plans

The PC replacements present a low IT risk because the technologies are already in place. The projects involve the replacement of computer hardware with similar functionality. In most cases the downtime or interruption is limited to an individual user with a duration of 1-3 hours.

References (*additional supporting documentation*)

N/A

Diagrams, Attachments, and Images

N/A

Authorization Criteria Specific to IT Projects

Describe the applications that are impacted and include information regarding the interfaces and interdependencies related to this IT project (diagrams may be considered to assist in review and approval).

Some PC software may be incompatible with the Windows 10 operating system. A team from the IT Quality and Assurance department is coordinating the testing of IT supported applications and departmental applications for Windows 10. If an application is incompatible with the Windows 10 operating system then the IT support team will work with the business client to make changes or upgrade the application. The scheduled replacement of PCs containing the application will be deferred until the application is upgraded. Upgrades to applications for Windows 10 are covered under the IT maintenance and support and are not in the scope of this project.

Assess the fit of this IT project with the overall IT strategy.

This project is part of the IT strategy and the IT infrastructure upgrades five year plan.

Describe control matters, such as the processes for data migration, change management plan including impacts to business processes, data maintenance controls, whether or not this IT project will be or impacts a Sarbanes-Oxley critical application, and the business continuity plan.

This program will follow IT's project management methodology and change control for implementations.

Attached SaaS/Cloud form where applicable.

N/A