Corporate Shared Services Project Authorization Form

Date Prepared: 02/15/2017	**Project Title:** 2017 Infrastructure Life Cycle Program - PCs
Company/Companies: 06:PSNH-Distribution 11:CL+P-Distribution 21:NSTAR Electric-Distribution 41:WMECO-Distribution 61:Eversource Service 71:Yankee Gas Services Co 1T:CL+P-Transmission 6T:PSNH-Transmission 4T:WMECO-Transmission	**Project ID Number:** IT17425:Infrastructure Lifecycle - PSNH IT17426:Infrastructure Lifecycle - CL&P IT17427:Infrastructure Lifecycle – NSTAR IT17428:Infrastructure Lifecycle – WMECO IT17429:Infrastructure Lifecycle – NUSCO IT17430:Infrastructure Lifecycle – YG
Organization: Eversource IT	**Plant Class/(F.P.Type):** Hardware
Project Initiator: [redacted]	**Project Type:** Annual
Project Manager: [redacted]	**Capital Investment Part of Original Operating Plan?** Yes
Project Sponsor: [redacted]	**O&M Expenses Part of the Original Operating Plan?**Yes
Estimated in service date(s): Varies by effort throughout 2017	**Transfer of Funds Request:** No
Total Request: $4,188,806	**Emergency Related Request:** No

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 Funds 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

CFO: 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 and Audio Visual 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 manage a phased replacement of these devices. It is the objective of this project to fund the replacement of this equipment to maintain a computing environment with a target of replacing approximately twenty percent of the PCs each year to support the 5-year warranty period.

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 2017	Year 2018	Year 2019+	Totals
Capital Additions - Direct	$ 4,026,862	$ -	$ -	$ 4,026,862
Capital Additions - Indirect	$ 121,944	$ -	$ -	$ 121,944
Removals net of salvage 1%	$ 40,000	$ -	$ -	$ 40,000
Subtotal Request	$ 4,188,806	$ -	$ -	$ 4,188,806
O&M	$ -	$ -	$ -	$ -
Total Request	**$ 4,188,806**	**$ -**	**$ -**	**$ 4,188,806**

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:

Straight Time Labor	$ 131,040	$ -	$ -	$ 131,040
Overtime	$ -	$ -	$ -	$ -
Outside Services/Consultants	$ 488,435	$ -	$ -	$ 488,435
Software	$ -	$ -	$ -	$ -
Hardware	$ 3,331,908	$ -	$ -	$ 3,331,908
Materials	$ -	$ -	$ -	$ -
Contingency 1.835%	$ 75,479	$ -	$ -	$ 75,479
Total Direct Capital Costs	**$ 4,026,862**	**$ -**	**$ -**	**$ 4,026,862**

Indirect Capital Costs	**Year 2017**	**Year 2018**	**Year 2019+**	**Total**
Indirects/Overheads (including benefits)	$ 121,944	$ -	$ -	$ 121,944
Capitalized interest or AFUDC , if any	$ -	$ -	$ -	$ -
Total Indirect Capital Costs	$ 121,944	$ -	$ -	$ 121,944
Total Removals net of salvage 1%	$ 40,000	$ -	$ -	$ 40,000
Total Capital Costs	$ 4,188,806	$ -	$ -	$ 4,188,806
Total O&M Costs	$ -	$ -	$ -	$ -
Total Project Costs	**$ 4,188,806**	**$ -**	**$ -**	**$ 4,188,806**
Vendor software payments (indicate whether or not included in the above)*	$ -	$ -	$ -	$ -

*Accounting for vendor software payments for SaaS or other agreements involving the right to use software is to be determined by a separate analysis, and approval by Plant Accounting and Budgeting and Financial Analysis is required. Plant Accounting maintains a checklist to aid in this analysis.

By Company Summary:

Note: Dollar values are in whole dollars:

	21:NSTAR Electric-Distribution	06:PSNH-Distribution	61: Eversource Service	11:CL+P-Distribution	41:WMECO-Distribution
Capital Additions - Direct	$ 370,566	$ 601,482	$ 1,265,594	$ 1,129,726	$ 169,331
Capital Additions - Indirect	$ 58,198	$ -	$ 63,746	$ -	$ -
Removals net of salvage 1%	$ 3,681	$ 5,975	$ 12,571	$ 11,222	$ 1,682
Subtotal Request	$ 432,445	$ 607,457	$ 1,341,911	$ 1,140,948	$ 171,013
O&M	$ -	$ -	$ -	$ -	$ -
Total Request	**$ 432,445**	**$ 607,457**	**$ 1,341,911**	**$ 1,140,948**	**$ 171,013**

	71:Yankee Gas Services Co	1T-CT-Transmission	6T-NH-Transmission	4T-WM-Transmission	Totals
Capital Additions - Direct	$ 421,835	$ 31,058	$ 18,635	$ 18,635	$ 4,026,862
Capital Additions - Indirect	$ -	$ -	$ -	$ -	$ 121,944
Removals net of salvage 1%	$ 4,190	$ 309	$ 185	$ 185	$ 40,000
Subtotal Request	$ 426,025	$ 31,367	$ 18,820	$ 18,820	$ 4,188,806
O&M	$ -	$ -	$ -	$ -	$ -
Total Request	**$ 426,025**	**$ 31,367**	**$ 18,820**	**$ 18,820**	**$ 4,188,806**

Overall Justification:

Project Need Statement *(Description of Issue)*

Eversource is currently using the Windows 7 Operating System and Windows 7 drivers for the company PCs. Mainstream support on the Microsoft Windows 7 Operating System concluded in 2015 and mainstream support of the Microsoft Windows 7 drivers concludes in 2017. Extended support for these software components is available until 2020. Sixty percent of the 10,000 PCs at Eversource are approaching the End-of Life and cannot be upgraded to the newer Windows 10 Operating System due to hardware and driver software incompatibilities.

Project Scope

The scope of the 2017 Infrastructure Life Cycle PC replacement program will be to replace approximately 2100 PCs in the Eversource West (Connecticut, Western Massachusetts and New Hampshire) area, and to replace approximately 500 PCs in the Eversource East (Eastern Massachusetts) area. Additionally, a small amount of funding of $20K, is allocated to replace End-of-Life Audio Visual equipment.

Project Objectives

The objective of this project to fund the replacement of Eversource End-of-Life PCs, using a phased approach with a target of replacing approximately twenty percent of the PCs each year to support the 5-year warranty period.

Background / Justification

Eversource IT maintains various Desktop PC, Laptop PCs, Rugged PCs and Audio Visual equipment, which provide various terms of operational service. This project funds the replacement of devices to maintain a computing environment with a target of replacing approximately twenty percent of the PCs each year to support the 5-year warranty period.

Eversource currently uses Windows 7 Operating System and Windows 7 drivers on the company PCs. Eversource IT is investigating options to upgrade to the newer Windows 10 Operating System. Older PCs, which do not support the Windows 10 operating system, should be replaced with newer Windows 10 compatible PCs to support a future Windows 10 conversion project.

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 replacement PCs support the state of the art Windows 10 operating system and support the Windows 10 operating system drivers. Eversource can use these Windows 10 compatible PCs for future upgrade projects like a Windows 10 conversion project or a touch screen upgrade project.

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.

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 2017	Year 2018	Year 2019	Year 2020+	Total Future Project Costs
Capital	$ -	$ -	$ -	$ -	$ -
O&M	$ -	$ -	$ -	$ -	$ -
Other	$ -	$ -	$ -	$ -	$ -
TOTAL	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

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

There are no additional incremental O&M costs associated with these PC replacements because the costs associated with the current maintenance agreements will cover the use of the new equipment in the 2017-2019 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 2017	Year 2018	Year 2019	Year 2020+	Total Future Project Benefits
Capital	$ -	$ -	$ -	$ -	$ -
O&M	-	-	-	-	-
Other	-	-	-	-	-
TOTAL	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

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

There are no additional benefits or cost reductions associated with the PC replacements.

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? -$ 4,188,806

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).

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.

Sixty percent of the PCs at Eversource cannot be upgraded to the newer Windows 10 operating system due to hardware and software incompatibilities. The PC program replacement program will replace the End-of-Life PCs so that fewer PCs must be replaced when the Windows 7 extended support expires or when PCs are upgraded to the Windows 10 operating system as part as part of a future project.

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 $40,000 for the PC to be replaced in 2017.

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 PC replacement project will identify a monthly target for the number of PCs that must be replaced in the Eversource West (CT, Western Mass,& NH) and Eversource East (eastern Mass) areas. The project team will meet monthly, 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 will show the actual progress of the deployments compared to the initial baseline and to the revised deployment forecast.

The deployment will be split into projects within the program with a budget target for each area. All projects are to be completed within the calendar year. See Table 1 for the list of projects.

Table 1 2017 Infrastructure Life Cycle EUC Projects:

#	Description	Company	Start Date	End Date
1	PC replacements	21-ES East	01/01/17	12/31/17
2	PC replacements	06-NH-Distribution	01/01/17	12/31/17
3	PC replacements	61-ES Service Co	01/01/17	12/31/17
4	PC replacements	11-CT-Distribution	01/01/17	12/31/17
5	PC replacements	71-YGSCO-Yankee Gas	03/01/17	12/31/17
6	PC replacements	41-WM-Distribution	03/01/17	12/31/17
7	PC replacements	1T-CT-Transmission	05/01/17	12/31/17
8	PC replacements	6T-NH-Transmission	05/01/17	12/31/17
9	PC replacements	4T-WM-Transmission	05/01/17	12/31/17
10	Audio Visual Replacements	61-ES Service Co	01/01/17	12/31/17

Regulatory Approvals

None

Risks and Risk Mitigation Plans

Describe the applicable risks and associated risk mitigation plans: e.g., construction, customer, reputational, schedule, financial, regulatory, environmental, safety and IT risks. Indicate discussions with relevant subject matter experts.

The PC and Audio Visual 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 2-4 hours.

Some projects within this program may not complete by the end of the year, due to higher priorities within the IT project portfolio. The IT project manager will work with Infrastructure Managers, to schedule support for the PC replacements within this program. PC replacements that are not completed in 2017 can be completed in 2018, if the funding is allocated through the annual budgeting process.

A phased approach to upgrade the End-of-Life PCs will mitigate the risk of having to replace over sixty percent of the Eversource PCs when the Windows 7 extended support expires or when Eversource upgrades to the Windows 10 Operating System.

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).

This program addresses the replacement of PC across Eversource locations that support applications running on the PCs. The audio visual replacements do not impact any applications.

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

This project is in alignment with the overall IT strategy

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 form where applicable.

Not Applicable