Docket No. 20190140-EI Cross-Examination Hearing Exhibit

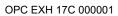
Exhibit No.: <u>17C</u>

Proffered by: Public Counsel

Short title:

Witness(s):

CONFIDENTIAL Report to the Transaction & Risk Committee





Crystal River Unit 3 (CR3) Decontamination & Decommissioning

1 – Executive Summary

CR3 has been pursuing a path to place the plant into long term dormancy or SAFSTOR. This model allows 60 years to complete the Decontamination and Dismantlement (D&D) process or until 2073. At the time this strategy was selected, the estimated cost to complete the immediate decommissioning process was greater than the projected funds in the Nuclear Decommissioning Trust (NDT). The CR3 team has made significant progress towards the conditions required to place the unit in SAFSTOR including the movement of all fuel into an Independent Spent Fuel Storage Installation (ISFSI). We are on track to complete the remaining requirements for SAFSTOR by August 2019.

In parallel, a team conducted a process to determine the feasibility of moving to an accelerated D&D model. After extensive due diligence and negotiations, the team determined that a transaction could be structured to make an accelerated D&D model a viable option and selected Accelerated Decommissioning Partners, LLC (ADP) for final contract negotiations. ADP is a consortium of NorthStar Group Services and Orano USA (formerly part of Areva).

ADP will receive a fixed amount of \$540 million to complete all decommissioning activity including the dismantlement of the existing plant structures, the disposal offsite of any wastes and the restoration of the land to allow it to be repurposed. This will be structured as a lease of the retired generation and ISFSI facilities to ADP with Duke Energy Florida (DEF) retaining ownership of the land and property. ADP would acquire direct ownership of the spent fuel and dry shielded canisters. ADP will be the licensed owner and operator, effectively transferring risk of performance to them.

ADP will have all responsibilities for project execution with the exception of a change in end state requirements as set by the State of Florida. This includes responsibility for unknown site conditions risks. However, if the cost of addressing an emergent issue results in insufficient funding in the allocated portion of the NDT to complete the decommissioning process, DEF would retain the option to return the site to a SAFSTOR plan.

DEF will retain title to the CR3 NDT and make disbursements as work is completed.

Due to project management efficiencies that can be achieved with the CR3 project and the decommissioning of CR1&2 being performed by sister companies, ADP provided a \$5 million discount. The financial analysis assumes we take advantage of this discount. This assumption is consistent with Coal Combustion Products (CCP) plans.

The successful completion of this transaction is expected to provide significant benefits to customers by mitigating environmental and financial risks of continuing a SAFSTOR path and by providing the opportunity to return the retail portion of unused funds in the NDT to customers sooner than in a SAFSTOR model.

Closing the transaction is contingent on receiving approval from both the Florida Public Service Commission (FPSC) and the US Nuclear Regulatory Commission (NRC), as well as receiving a favorable private letter ruling from the Internal Revenue Service (IRS). The FPSC approval process is expected to take between 6 and 9 months to complete after contract signing. The NRC license transfer process is expected to take between 8 to 12 months after the contract is signed. The IRS issuance of a Private Letter Ruling (PLR) is likewise expected to take between 8 and 12 months after the contract is signed.

During the transition period between contract signing and transaction closure, ADP will perform planning and other non-physical work that facilitates them assuming responsibilities at closure. The costs for these efforts are included in the fixed price of \$540 million; however, if the transaction does not close, DEF is only obligated to reimburse ADP for costs associated with activities that would have otherwise been performed for decommissioning or to support the SAFSTOR model.

This whitepaper is based on best-available information and is subject to final contract negotiations, pricing, and schedule.

Recommendation to Management

The team is still finalizing contract terms and conditions. The recommendation is to authorize the execution of the transaction with ADP on terms consistent with the TRC whitepaper with submission to the Board at the May 1st meeting for approval and authorization to execute the agreement.

Project Description

Business Unit	Generation Ope	Generation Operations Support		
Executive Sponsor	Dhiaa Jamil			
Transaction Sponsors	Ron Reising an	d Catherine Stem	pien	
Project Location	Crystal River Ur	nit 3 in Citrus Cou	inty, Florida.	
Investment Date	July 2, 2020 (pr	July 2, 2020 (projected closure date)		
Completion Date	N/A			
Transaction Costs*	Estimate:	\$540 Million	Variance from Current Financial Plan**:	N/A
Direct Project Costs*	Estimate:	\$540 Million	Variance from Current Financial Plan**:	N/A
Existence of Enterprise Risks	□ Yes	🛛 No		
Cost Estimate Class	[Class I, II, III, IV	/ or V] Class I		
Costs are in 2018 dollars	•			

**Amount to be funded from the NDT

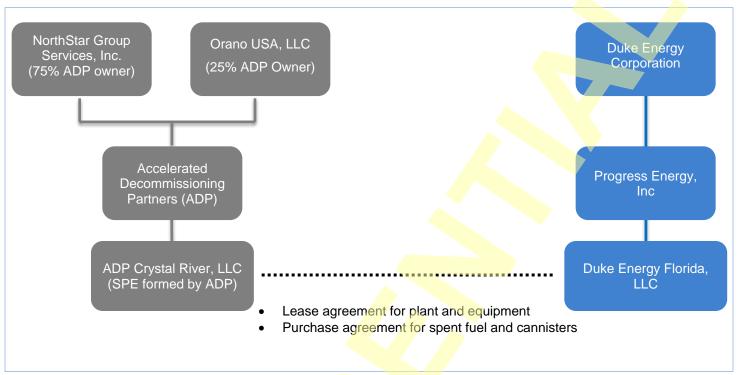
Document Version Control

 Whitepaper Version: FINAL
 TRC Meeting Date: Tuesday, March 19, 2019

TRC Meeting Date: March 19, 2019

2 – Transaction Description

The formation of the counterparty entering into contract with DEF is depicted below.



2.1 – Strategic Rationale

Prior to placing the plant in SAFSTOR dry dormancy, DEF decided to explore the viability of an accelerated D&D strategy. Potential benefits from accelerating D&D include:

- Mitigates environmental and safety risks from the plant sitting dormant for an extended time
- Relieves DEF of the long-term obligation and liability for the continued maintenance of the property
- Reduces the risk of regulatory changes including loss of availability of radioactive waste disposal sites
- Mitigates financial risks which include:
 - o Cost escalation rates that exceed the NDT rate of return
 - o Significant reduction in the value of the NDT due to market conditions
- Leverages workers with plant specific knowledge (knowledge transfer to D&D vendor)

The primary rationale for remaining in SAFSTOR is that financial and project execution conditions, including technological advances, could improve in the future reducing the risk of D&D.

Any transaction must demonstrate that it benefits the customers from a risk mitigation and financial perspective; this includes potential impacts on the NDT. Any transaction would require approval from the NRC and the FPSC.

In summary, a third party is prepared to perform the D&D now, instead of waiting 60 years, with the costs capped and accepting the environmental liabilities.

TRC Meeting Date: March 19, 2019

2.2 – Background

CR3 has been pursuing a path to place the plant into long term dormancy or SAFSTOR. This model allows 60 years to complete the Decontamination and Dismantlement (D&D) process or until 2073. At the time this strategy was selected, the estimated cost to complete the decommissioning process was greater than the projected funds in the Nuclear Decommissioning Trust (NDT). The CR3 team has made significant progress towards the conditions required to place the unit in SAFSTOR including the movement of all fuel into an Independent Spent Fuel Storage Installation (ISFSI). We are on track to complete the remaining requirements for SAFSTOR by August 2019.

In parallel, a team conducted a process to determine the feasibility of moving to an accelerated D&D model. After extensive due diligence and negotiations, the team determined that a transaction could be structured to make an accelerated D&D model a viable option and selected Accelerated Decommissioning Partners, LLC (ADP) for final contract negotiations. ADP is a consortium of NorthStar and Orano.

2.3 – Scope

DEF will submit a license transfer application (LTA) to the NRC whereby ADP will become the licensed Owner and Operator of CR3. ADP will be required to comply with all applicable Federal, State, and Local laws, statutes, rules and regulations, zoning, guidelines, interpretations, acts, requirements, permits, codes and standards, and licenses.

ADP will have full responsibility for:

Spent Fuel Management

Program management, engineering, security and emergency planning until the DOE picks up the fuel (assumed to be 2037) or ADP transfers it to an interim storage facility

Plant D&D

- Physical D&D:
 - Remove structures, systems, and components (SSCs) from the facility
 - Pack and ship radioactive waste off-site
 - Pack and ship non-radioactive hazardous waste off-site
 - Reduce residual radioactivity to levels permitting unrestricted release of the site
- Partial License Termination:
 - o After completion of the plant D&D, ADP will file for a partial license termination
 - NRC license terminated to ISFSI only, with site boundary reduced to the ISFSI-only Owner Controlled Area in accordance with 10 CFR 72.104 and 72.106
- Site Restoration:
 - All designated buildings, structures, and pavement/asphalt removed
 - Within the power block (all areas at berm elevation 119') entire area except ISFSI cleared to three (3) feet below grade level
 - Outside of the power block (all areas not at berm elevation 119') areas made permeable to existing grade
 - Firing range structures removed and area remediated
 - West settlement pond remediated, including influent and effluent piping, and filled to grade
 - Site restored such that vegetation can grow providing erosion control restore the site

ISFSI D&D

- Ship spent fuel (DOE pickup or otherwise) and Greater Than Class C (GTCC) waste off-site
- Physical D&D:
 - o Remove structures, systems, and components (SSCs) from the facility
 - o Pack and ship non-radioactive hazardous waste off-site
 - o Reduce residual radioactivity to levels permitting unrestricted release of the site
- Final License Termination:
 - After spent fuel and GTCC waste is removed from the site, ADP will file for Final License Termination
 - NRC license terminated in accordance with 10 CFR 72.104 and 72.106
- Site Restoration
 - All ISFSI buildings, structures, and pavement/asphalt removed
 - o ISFSI area cleared to three (3) feet below grade level
 - Site restored such that vegetation can grow providing erosion control restore the site
 - Site released for repurpose and reuse
 - All affected environmental permitting amended/approved/closed as required
- DEF will then have possession of the site for unrestricted constructive reuse.

2.4 – Schedule & Milestones

The project timeline assumes transaction closure on June 26, 2020, and reflects ADP's post-contract milestones, including their assumption for DOE fuel pickup.

Period	Key Project Activities / Milestones	Start	Finish
	BOD Transaction Approval		5/1/2019
	Finalize and Award Contract	2/28/2019	5/31/2019
	Prepare and Submit License Transfer Application	3/27/2019	6/1/2019
1	NRC License Transfer Review and Approval	6/15/2019	6/26/2020
	FPSC Petition Submittal, Review and Approval	6/1/2019	4/1/2020
	IRS PLR Submittal, Review and Approval	6/1/2019	6/1/2020
	Transaction Closure		7/2/2020
3	Planning and Site Preparation	7/2/2020	10/23/2021
4a	Large Component Removal	10/24/2021	8/27/2023
4b	Site Decontamination	8/28/2023	8/25/2025
4f	Partial NRC License Termination	8/26/2025	4/21/2026
5	Partial Site Restoration	4/22/2026	6/15/2027

Crystal River Unit 3 (CR3) Decontamination & Decommissioning

Period	Key Project Activities / Milestones	Start	Finish
	Spent Fuel Management	7/2/2020	5/4/2037
	Spent Fuel Picked Up By DOE	1/1/2035	5/4/20 <mark>37</mark> *
2	Final NRC License Termination	6/1/1937	10/02/2037
	Final Site Restoration	10/5/2 <mark>037</mark>	12/25/2037
	Project Complete		12/31/2037

* DOE pickup of Spent Fuel estimated in 2037 congruent with industry expectations for permanent storage facility approval (i.e., Yucca mountain).

2019 2020 2021 2022 2023 2024 2025 2026 2027 2028	7
Period 1 Pre-closure Activities License Transfer and Transaction Closure	
Period 2 Period 3 Planning and Site Preparation	Spent Fuel Management Final License Termination Final Site Restoration
Period 4a Large Component Removal Period 4b Site Decontamination	
Per 4f Partial License Termination	
Period 5 Site Restoration	Project Complete

2.5 – Contractor/Vendor/Technology Selection

ADP is a joint venture between NorthStar and Orano. This joint venture combines NorthStar's demolition and environmental remediation expertise with Orano's core competencies in nuclear component dismantling and spent fuel management.

The ADP team includes Waste Control Specialists, LLC (WCS) which offers a state-of-the-art, high-capacity low level radioactive waste disposal facility and the only facility in the United States that can directly dispose of class A, B and C waste from nuclear power plants. The cost of waste disposal is one of the largest projects costs. With WCS as part of the ADP team and a sister company to NorthStar, potential increases in waste disposal costs can be mitigated by the ADP team. These costs could be absorbed by WCS and not passed back to the project, preserving funding to pay for other project costs and maintaining the project contingency. Other bidders would need to pay WCS for higher waste disposal costs. Additionally, the ADP consortium has the equipment and experience to self-perform almost all work on the project and will rely very little on subcontractors.

ADP is actively working with the DOE to license WCS as the national disposal facility for GTCC waste, and an Interim Spent Fuel Storage Facility for spent fuel which may enable spent fuel to be removed from the CR3 site sooner than the current estimated removal date by the DOE (2037).

Financial assurance of the contractual commitments is supported by various means including performance bonds, credit enhancement mechanisms, and parent guaranties.

ADP team decommissioning experience is highlighted in Appendix 2.

TRC Meeting Date: March 19, 2019

2.6 – Contractual Structure, Compliance & Legal Discussion

The contract would be for a fixed cost of \$540 million to complete all D&D activities including restoration. The contract also covers the operation of the ISFSI facility along with the dismantlement of the ISFSI facility and restoration of the land after the fuel is off site.

ADP will be the licensed owner operator and would be responsible for all project execution risks with the exception of a change to end state condition requirements by the FDEP. ADP's responsibilities include risks such as escalation of projects costs and the amount and characterization of contaminated wastes. This transfer of risk to ADP also includes responsibility for unknown site conditions. The only risk that remains with DEF, and will not be transferred to ADP, is the risk of a change to DEF's current understanding of end state condition requirements. However, if the cost of addressing an emergent issue results in insufficient funding to complete the decommissioning process, there is the potential to return the site to a SAFSTOR plan with NRC approval. ADP's bid is based on these end state condition requirements. To the extent those requirements change, however, and result in higher costs than ADP has assumed in its bid, then DEF would be obligated to fund the increased cost from the owner cost portion of the NDT. DEF notes that it currently faces the risk that the FDEP will change its end state condition requirements, so this transaction does not change or increase that risk.

The transaction will be structured with DEF retaining ownership of the plant land and structures. ADP will lease the structures, including ISFSI. ADP will directly own the spent fuel and canisters.

DEF will assign its contract with the DOE for acceptance of spent fuel. The assignment will be structured to enable DEF to recover its cost incurred through the date the transaction closes. ADP will pursue its cost to manage the spent fuel \ ISFSI from the DOE under this contract, and ADP will be entitled to retain any such recovery for costs incurred after the date the transaction closes.

DEF will retain ownership of the Decommissioning Trust Fund. DEF will create a "sub account" and include an amount equal to the contract price (\$540 million) in that "sub account". ADP will be able to direct the investment strategy for these funds based on investment policies and guidelines acceptable to DEF. ADP's strategy is to limit the investment to low risk investments such as treasuries to reduce the potential impact from market risks. DEF will only disperse money from the NDT to ADP upon receipt of a certificate of completion from ADP. Although DEF will authorize disbursement based on the certificate of completion, DEF will retain the ability to audit the certificates and to validate that the work was performed through a third party. DEF will contest any item the third party identifies as not being complete. DEF will perform a true-up with disputes reviewed quarterly and an annual audit. Disputed invoice totals will not be allowed to exceed \$20 million.

ADP will <u>not</u> have rights to use additional funds in the NDT beyond the total contracted amount of \$540 million. DEF will use any additional funds in the trust as a separate reserve to mitigate unforeseen circumstances if necessary. The retail portion of the funds that are not needed will be returned to customers.

The contract will be contingent on DEF obtaining a private letter ruling from the IRS that the transaction structure constitutes a services arrangement, whereby DEF remains the tax owner of the facility and, as a result, can continue to hold the qualified trust fund.

OPC EXH 17C 000008

CONFIDENTIAL

TRC Meeting Date: March 19, 2019

ADP will form a SPE, ADP Crystal River, LLC (ADPCR) as the counter party in the transaction. Significant provisions have been included in the contract to support the financial assurance that ADPCR can meet its contractual obligations. These include the items listed below.

- Parent company guarantees
- \$50 million separate liquidity account consisting of:
 - Initial cash funding of \$20 million by the parent (ADP)
 - Escrow portion of milestone payments (6% of payment) until fund reaches \$50 million
 - Waste disposal guarantee from WCS until fund reaches \$50 million
 - Deposited in provisional trust (bankruptcy remote entity)
 - \$30 million released to ADP upon reaching ISFSI only end-state condition and filing partial license termination; remaining funds (\$20 million) released to ADP when ISFSI-only state is achieved
 - DEF NDT is beneficiary in event of default
- Environmental insurance:
 - \$30 million previously unknown contamination (non-radiological)
- Performance bonds
 - Each ADP partner or any subcontractor will be required to secure a performance bond for their scope of work. The bond is a guarantee that the subcontractor will complete their scope according to the agreed upon contract price

Indemnifications and Environmental Liabilities – To Be Completed

Off-Site (outside of CR3 Licensed Site) liabilities:

- Radiological liabilities
 - ADPCR will take responsibility for these liabilities (post-closing)
 - The ANI insurance policy will be transferred to ADPCR
 - This policy provides coverage for any offsite radiological event including during transportation of radiological material
 - DEF will remain an insured party under the policy
- Non-Radiological
 - DEF would retain responsibility for these liabilities except for contamination caused by ADPCR, its affiliates or subcontractors

On-Site (CR3 Facility and NRC Licensed Site) liabilities:

ADPCR takes liability for all on-site environmental liabilities, both radiological and non-radiological

Other Key Contractual Terms

- DEF will have a seat on the SPE board with veto rights on limited key decisions
 - o Resume SAFSTOR strategy
 - o Voluntary filing for bankruptcy
 - Any amendment that would change DEF's rights
- DEF will have option of stepping in, if the SPE is unable to complete decommissioning
 - If an event of default occurs, DEF would be able to either take over the membership interests of the SPE or assign them to another contractor (subject to NRC license transfer approval)
 - Examples of default events (to be negotiated) would be (i) material failure to perform covenants that is not cured after notice; (ii) bankruptcy of one of the parent companies; (iii) failure of one or more parent companies to meet obligations to the SPE under a guaranty or support agreement; (iv) suspension of material decommissioning work for one year or more without consent of DEF; (v) suspension of decommissioning work by NRC for 6 months or more; and (vi) intentional and knowing falsification of a certificate requesting disbursement of funds.

2.7 – FPSC Regulatory Requirements & Considerations

Rule 25-6.04365, Nuclear Decommissioning, of the Florida Administrative Code (F.A.C.) requires that there are sufficient funds in the decommissioning trust fund at the time of decommissioning to meet all required expenses at the lowest possible cost to utility customers¹. The cost for D&D will be paid from the NDT, with the retail portion of any excess funds returned to the customers², and the retail portion of any deficits collected from the customers. Our analysis shows there is adequate funding to complete the decommissioning process. In the event that there are unforeseen circumstances that require additional funding, there are financial assurance mechanisms provided by ADP, insurance protections, and additional reserve funding; all supporting performance assurance.

In the event an emergent issue(s) is so significant that additional funds, beyond those mentioned above, are required to complete the project – a return to SAFSTOR is an option. This would provide additional time for the NDT funds to grow and provide sufficient funding to complete the project. Alternatively, DEF could request additional funding from customers. In this scenario, DEF would have to demonstrate that the actions to date have been prudent and that the proposed actions are prudent.

DEF will request FPSC approval of this transaction. This approval is expected in 6 to 9 months after contract signing and petition submitted.

2.8 – Environmental Issues & Discussion

The post D&D site end-state criteria for release for unrestricted use is:

- No more than 25 millirem per year (NRC and FDEP)
- All affected environmental permits amended/approved/closed as required, with final site storm water control system designed and implemented

¹ FPSC ORDER NO. PSC-02-0055-PAA-EI ²e 18CFR35 Subpart E §35.32 (7)

^{2 -} Transaction Description

The end state conditions are set by the NRC and the State of Florida. The Florida Department of Environmental Protection (FDEP) requirements are consistent with the NRC recommendation. FDEP has confirmed in writing the requirements to be 25 mrem of background radiation, reduction of structures to be 3 feet below grade and the ability to re-use non-radioactive concrete for fill.

ADP will be responsible for conducting its operations at CR3 in compliance with all laws, including applicable environmental laws and permits. DEF's goal is to transfer certain environmental permits applicable to CR3 to ADP. To the extent that CR3 is covered by permits applicable to the entire Crystal River Energy Complex (CREC), DEF will attempt to remove any CR3 requirements into separate permits, which will be done in a manner that does not impact the other CREC facilities. If we are not able to obtain separate permits, ADP will operate under the existing permits and must comply with all permit requirements, and the risk of ADP's noncompliance may be mitigated through indemnification and insurance.

2.9 – Accounting Issues

Accounting conclusions related to the Asset Retirement Obligation (ARO) and related Regulatory Asset, and consolidation of ADPCR are pending receipt of regulatory orders and finalization of legal agreements. Depending on evaluation results, the ARO and related Regulatory Assets will either be completely removed from DEF's balance sheet or will be required to be remeasured due to the change in D&D approach. No material impact to the income statement is expected. With respect to consolidation, accounting will need to review the ADPCR Limited Liability Company Agreement which will not be drafted until after Board of Directors approval to fully understand DEF's continued involvement. Based on the transaction structure as currently described it is not anticipated that DEF will be required to consolidate ADPCR.

2.10 – Tax Issues

At contract signing, DEF will pursue a Private Letter Ruling (PLR) from the Internal Revenue Service (IRS) that the transaction structure constitutes a services arrangement, whereby DEF remains the tax owner of the facility and, as a result, can continue to hold the qualified trust fund. Obtaining a favorable PLR is a condition of closing.

2.11 – Insurance Issues

Off-Site (outside of CR3 Licensed Site) liabilities:

- Radiological liabilities
 - ADP will take responsibility for these liabilities (post-closing)
 - The ANI insurance policy will be transferred to ADP
 - This policy provides coverage for any offsite radiological event including during transportation of radiological material
 - DEF Energy will remain an insured party under the policy
- Non-Radiological
 - DEF would retain responsibility for these liabilities except for contamination caused by ADP, its affiliates or subcontractors

On-Site (CR3 Facility and NRC Licensed Site) liabilities:

• ADP takes liability for all on-site environmental liabilities, both radiological and non-radiological

TRC Meeting Date: March 19, 2019

Additional Insurance

- NEIL coverage to insure against property damage accident claims
 - o Coverage is necessary for ISFSI and any consequential environmental impacts as a result of an accident
- General liability insurance
 - Standard coverage for major services/construction contracts
- Environmental pollution insurance (\$25 million coverage)

3 – Analysis

3.1 – Alternative Analysis

The alternative analysis is comparing the accelerated decommissioning approach with remaining on the SAFSTOR path. The proposed transaction is with an experienced and qualified counter party and shows clear financial viability with adequate funds in the NDT to complete the project. It also demonstrates effective mitigation of project execution and financial risks relative to the SAFSTOR model as outlined below.

- Mitigates environmental risks from the plant sitting dormant for decades.
- Mitigates risk of regulatory changes
 - Includes availability of waste depository sites
- Mitigates financial risks, providing cost certainty
 - Cost escalation rates relative to NDT rate of return
 - Significant devaluation of the trust fund at the time of project execution.
- Reduced risk reduces the potential need for additional funding from customers.
- Has the potential to return the retail portion of any excess NDT funds to customers sooner
- Transaction terms effectively transfer project execution risk to ADP

These benefits demonstrate a clear advantage to pursue the accelerated D&D strategy versus remaining with SAFSTOR.

TRC Meeting Date: March 19, 2019

CONFIDENTIAL

3.2 – Project Costs & Reserves

ADP Cost (in 2018 dollars)	\$	540 <mark>,00</mark> 0
Owner Cost (in 2018 dollars through 2037)	\$	44,719
Total Cost	\$	584,719
	(
NDT Value		
NDT Value (Net Taxes as of 2-15-19)	\$	65 <u>1,0</u> 00
Unallocated NDT Funds		
Post-closing Balance (June 2020)	\$	66,281
DOE Recovery (June 2022)	\$	131,409
2022 Balance	\$	219,383
2038 Balance *	\$	350,699

* Retail portion of unused funds would be returned to customers when spent fuel is no longer at CR3 site. Postclosing NDT rate of return conservatively assumed at 2% net of taxes.

3.3 – Key Assumptions

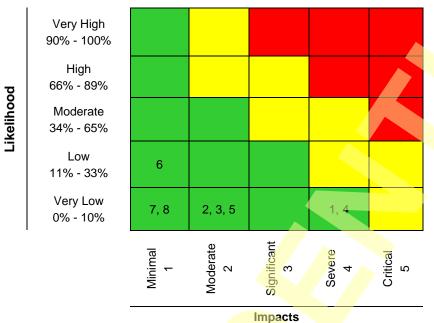
The key assumption is that there is adequate funding in the NDT to close the transaction. This assumption is valid given the current value of the NDT. However, a significant drop in market value could cause a delay in the ability to close the transaction. To ensure adequate funds are in the NDT at the time regulatory approvals are received (see discussion below), Treasury is currently evaluating hedging strategies to ensure sufficient NDT value greater than the value of the contract cost and estimated owner's cost prior to receiving recovery from the Department of Energy for failure to take possession of spent fuel. The hedge is expected to consist of a put option which would protect against downside risk below a predetermined level and a call option that would effectively limit upside gain beyond a predetermined level. In evaluating the structure of the hedge, Treasury plans to include a contingency to cover potential increased owner costs or tracking errors related to the options. The analysis assumes that spent nuclear fuel is picked up by the DOE in 2038 and that all SFM costs are recoverable from the DOE per the standard contract.

TRC Meeting Date: March 19, 2019

4 – Risks & Mitigations and Stakeholder Discussion

4.1 Risks & Mitigations

Risk Matrix



Risk Description		Impact	Mitigation
1.	Unknown-Unknowns	F	Significant reserve funding exists to mitigate risk exposure
2.	NRC Approval Not Obtained	F	Risk probability is very low due to NRC issuing license at VY. Go to SAFSTOR
3.	FPSC Approval Not Obtained	F	Pre-contract ground work with intervenors. Establish rigorous financial assurance protections in the contract. Go to SAFSTOR
4.	FDEP End-State Conditions Change	F	If impact exceeds available funding, then go to SAFSTOR
5.	ADP Insolvency	F	DEF has voting rights to prevent voluntary bankruptcy. DEF has step-in rights should ADP become insolvent.
6.	CR3 D&D Activities Impact to Operating Units	F	Contract terms will contain penalties for interference whereby the vendor will be responsible for direct cost not consequential damages
7.	Cost Escalation Exceeds Estimate	F	This is an ADP risk
8.	Reputational risk	R	Thorough selection and due diligence process. Selected counter party has significant experience. Contract is structured to provide significant financial assurance.
Impac	Impacts Explanations		

F = Financial; R = Reputational; O = Operational, Legal and Compliance

Enterprise Risks

There are no known enterprise risks.

4.2 – Stakeholder Discussion

Stakeholder	Discussion of Interest & Impact	Assessment
Customers	 Well-funded vendor to perform work with significant financial performance assurance. Mitigate financial and hazardous waste risk Return funds sooner than SAFSTOR Potential to remove fuel from Florida sooner than anticipated by DOE (2038) Repurpose and reuse land 	F
Community	Local community positively impacted by removal of radiological hazards and non-radiological hazards waste. Potential to remove fuel sooner than anticipated by the DOE (2038) Local community impacted positively by additional workers needed during project phase. Local community negatively impacted by about 50 fewer DEF employees participating in charitable giving campaigns and nonprofit volunteerism.	Ν
Employees	Employees negatively impacted by reducing DEF headcount through accelerated decontamination and dismantlement (D&D). (The Aug. 1, 2019, CR3 organization has about 50 employees whereas the D&D model would have no DEF employees.) Employees positively impacted by possible opportunity to leave DEF and work for the D&D vendor.	Ν
Shareholders	Shareholders are positively impacted by mitigating risk that could damage reputation in Florida. Shareholders are positively impacted by repurposing land after fuel offsite	F
Regulators	 The Nuclear Regulatory Commission (NRC) will review and adjudicate the transfer of the nuclear operating license from DEF to the vendor and will and monitor D&D performance. The Florida Department of Environmental Protection (FDEP) will review and adjudicate permits and monitor D&D performance. The NRC and FDEP are generally favorable of D&D facilities removing hazards from the environment. The Florida Public Service Commission will continue interfacing with DEF, monitoring the sufficiency of the nuclear decommissioning trust fund (which DEF will manage) and receiving routine reports about the decommissioning project. 	F
Note: Favorable (F	;; Unfavorable (U); Neutral (N)	

Stakeholder Engagement Plan

A Stakeholder Engagement Plan is being finalized consisting of major contracting milestones and specific work plans.

The below timeline for detailed work plans assumes the Duke Energy Board of Directors approves the contract at the May 1 board meeting.

Communications work associated with expediting CR3's decommissioning plan and entering into an agreement with a vendor is categorized in four phases as follows:

Crystal River Unit 3 (CR3) Decontamination & Decommissioning

TRC Meeting Date: March 19, 2019

Description	Communications Lead	Communications Support	Timeline
Phase I : Select vendor and enter into and complete contract negotiations	DEF	Vendor	December 2018 - May 2019
Phase II: Publicly announce contract agreement	DEF	Vendor	TBD
Phase III : Establish transition team and introduce vendor to stakeholders (DEF holds license)	DEF and vendor (joint ownership)	DEF and vendor (j <mark>oint</mark> ownership)	June 2019 – June 2020
Phase IV : Receive approval of license transfer from Nuclear Regulatory Commission and FPSC, close deal (Vendor holds license)	DEF and vendor (joint ownership)	DEF and vendor (joint ownership)	June 2020

After the deal closes in March 2020, ADP will hold the Nuclear Regulatory Commission license and therefore be responsible for their own outreach, including media and community engagement. However, in the contract, DEF will require ADP to keep DEF informed of emergency and reportable events in real-time. DEF will also require ADP to submit monthly and quarterly reports and undergo annual audits. DEF will use this information to validate performance, ensure financial sufficiency and inform internal stakeholders of the project's status.

5 – Assessment of Adhere to Corporate Governance

Fully complied with all corporate governance.

TRC Review Schedule

Milestone	Due Date	Date Completed	Compliance (Y/N)
TRC Whitepaper	February 18,2019	February 18,2019	Y
TRC Scrub Team Meeting	February 20, 2019	February 20, 2019	Y
TRC Scrub Team Final Sign-Off	March 6, 2019	March 6, 2019	Y
TRC Final Materials	March 11, 2019	March 11, 2019	Y
TRC Meeting	March 19, 2019	March 19, 2019	Y
Board of Directors Materials	April 12, 2019		
Board of Directors Meeting	May 1, 2019		

Project Management Center of Excellence (PMCoE) Review

This transaction structure is not a PMCoE project, it leases the site to the counterparty. The counterparty will become the NRC licensed owner and operator and will have responsibility to complete the D&D project. DEF will not have significant ongoing role.

Appendix 1 – Summary of Contracts

The following contracts are anticipated to be established with ADPCR for the CR3 D&D:

- 1. Decommissioning Services Agreement
- 2. Spent Fuel Purchase and Sales Agreement
- 3. Lease
- 4. Pledge Agreement
- 5. Pre-Closing Decommissioning Services Agreement

The following outlines the terms of the agreement:

Crystal River Unit 3 Decommissioning Key Terms

Owner:	Duke Energy Florida, LLC ("DEF")
The Project:	The performance of all activities necessary to decommission the Crystal River Nuclear Plant Unit 3 (" CR-3 ") and related ancillary facilities (collectively, the " CR-3 Facility ") and Independent Spent Fuel Storage Installation (" ISFSI ") at the " CR-3 Site ," located on the Gulf of Mexico in Citrus County, Florida except certain portions of the CR-3 Facility as described below in the section titled "Transaction Structure," including obtaining NRC approval of partial license termination to reduce the NRC licensed area at the CR-3 Site to ISFSI only and to release all other land in the CR-3 Site licensed area from the NRC License on or before [<u>insert date]</u> (the " End Date "), assuming Closing (as defined below) occurs on [<u>insert date]</u> , and to operate and maintain the ISFSI until spent nuclear fuel and greater than Class C (" GTCC ") waste is removed from the CR-3 Site and final NRC license termination is achieved. CR-3 shares the CR-3 Site with the larger Crystal River Energy Complex (" CREC "), which includes other structures, such as four fossil-fueled units, that are not intended to be decommissioned as part of the Project, some of which will continue operating during the decommissioning of the CR-3 Facility. The CR-3 Facility discussed herein means CR-3 and the associated buildings and structures, including underground structures such as piping between buildings. Aspects of the CR-3 Facility that will not be decommissioned as part of the Project (the " Excluded Facilities ") include: • the Switchyard • any other facilities identified in the Transaction Documents ADP-NRC Licensee will achieve NRC license termination for the portions of the CR-3 Site related to the CREC and unrelated to CR-3 that will not be decommissioned (unless otherwise agreed), including the fossil-fueled units, two large cooling towers, coal delivery and storage areas, ash storage area, office buildings, warehouses, barge handling dockets, and railroad.
ADP NRC Licensee and Parent Companies:	ADP Crystal River, LLC ("ADP NRC Licensee") and, its Parent Companies: Accelerated Decommissioning Partners, LLC, NorthStar Group Services, Inc., and Orano USA LLC ("Parent Companies")

Crystal River Unit 3 (CR3) Decontamination & Decommissioning

	 DEF and ADP NRC Licensee will enter into a Decommissioning Services Agreement, Spent Nuclear Fuel Purchase and Sale Agreement, Lease Agreement, Pledge Agreement, Pre-Closing Decommissioning Services Agreement and ancillary documents (collectively, the "Transaction Documents") whereby the parties will agree that: Subject to receipt of Required Regulatory Approvals (as described below), including approval of the NRC, the NRC license for CR-3 (NRC Operating License No. DPR-72, the "NRC License"), including licensed ownership, will be transferred to ADP NRC Licensee Ownership and title to the spent nuclear fuel and dry shielded canisters will be transferred to ADP NRC Licensee The Standard Contract for Spent Nuclear Fuel will be assigned to ADP NRC Licensee, and ADP NRC Licensee will have all rights to seek recovery of the ISFSI-related and any other spent nuclear fuel expenses from DOE DEF's Standard Contract for Spent Nuclear Fuel requires that notice be provided to the Department of Energy within ninety (90) day of any assignment with transfer of title to spent nuclear fuel and/or high-level waste DEF will retain all rights relating to claims for damages under the Standard Contract incurred prior to the Closing DEF will retain title to and ownership of the CR-3 Site, including the property, plant and equipment ("PPE"), but will lease those portions of the CR-3 Site containing the CR-3 Facility, including the ISFSI, to ADP NRC Licensee until all spent nuclear fuel and GTCC waste is removed from the ISFSI and the CR-3 Site is removed from the ISFSI and the CR-3 Site is removed from the ISFSI and the CR-3 Site is removed from the ISFSI and the CR-3 Site is removed from the ISFSI and the CR-3 Site is removed from the ISFSI and the CR-3 Site is removed from the ISFSI and the CR-3 Site is removed from the ISFSI and the CR-3 Site is removed from the ISFSI and the CR-3 Site is removed from the ISFSI and the CR-3 Site is removed from the NRC License through f
Transaction Structure:	 The Lease Agreement shall provide for the right of ADP NRC Licensee to possess, salvage and dispose all PPE with full authority to act on behalf for DEF with respect to transferring title to PPE in connection with any salvage or disposal. The Lease Agreement shall require that ADP NRC Licensee conduct prompt decommissioning of the CR-3 Facility
	 DEF will retain ownership of the CR-3 Nuclear Decommissioning Trust ("NDT") to use as compensation for the performance of decommissioning activities
	• ADP NRC Licensee will perform radiological decommissioning, environmental remediation and other activities relating to the decommissioning of the CR-3 Facility (other than the Excluded Facilities), including providing security for the ISFSI and performing other nuclear security functions at the CR-3 Site, reduce the NRC licensed area to ISFSI only, operate and maintain the ISFSI until all spent nuclear fuel and greater than Class C waste is removed from the ISFSI and the CR-3 Site, perform any decommissioning to release the ISFSI area of the CR-3 Site from the NRC License, complete site remediation of the CR-3 Site and obtain NRC approval of the release of all of the CR-3 licensed area from the NRC Licensee
	• DEF will control industrial site security for the CR-3 Site but will grant easements or licenses to ADP NRC Licensee so that ADP NRC Licensee has the ability to perform all activities required under the NRC License, the Decommissioning Services Agreement, the Spent Nuclear Fuel Purchase and Sale Agreement, the Lease Agreement and the Pre-Closing Decommissioning Services Agreement.
	ADP NRC Licensee and DEF will define ADP NRC Licensee's post-Closing obligations to DEF, including ADP NRC Licensee's obligation to reduce the NRC licensed area to ISFSI-only by the specified End Date
	ADP NRC Licensee will schedule and perform the decommissioning and other activities that ADP NRC Licensee will perform on the CR-3 Site so that its activities do not interfere with DEF's on-going operations on the CR-3 Site.
	Upon the transfer of the NRC License to ADP NRC Licensee and the Closing, ADP NRC Licensee shall be responsible for providing all NRC-mandated security and access control at the CR-3 Site in accordance with applicable Laws.

Crystal River Unit 3 (CR3) Decontamination & Decommissioning

	Means the achievement of all of the following:	
End-State Conditions:	 Environmental remediation of hazardous substances sufficient to comply with relevant environmental laws that result from or are identified during the decommissioning of those portions of the CR-3 Facility that are to be decommissioned as part of the Project 	
	 Removal of all CR-3 Facility structures and man-made improvements (other than the ISFSI and the other Excluded Facilities) to up to three feet below existing grade, unless otherwise required by applicable law or regulation, and backfill to achieve level grade 	
conditions.	 Environmental remediation of the areas of the CR-3 Site that are released from the NRC licensed area sufficient to discharge all Environmental Liabilities (defined below) 	
	 The NRC shall have amended the NRC License to cover only the ISFSI and the remainder of the CR-3 Site shall be released for unrestricted use, including the written approval granted by NRC pursuant to 10 CFR 50.83 to release all portions of the CR-3 Site (other than the ISFSI) by demonstrating compliance with the radiological criteria for unrestricted use specified in 10 CFR 20.1402 	
Compensation:	The work will be performed for a fixed price of \$540 million, as may be adjusted for all amounts paid by DEF to ADP-NRC Licensee under the Pre-Closing Decommissioning Services Agreement (the "Agreed Amount"). The work will be paid monthly based on percentage completion of each "Pay Item". DEF will hold and manage the NDT, and ADP NRC Licensee will invoice once each month for the applicable percentage of each Pay Item completed the prior month, and will provide lien waivers and other supporting documentation with each invoice. ADP NRC Licensee will certify that it has completed the applicable percentage completed for each Pay Item. DEF will have the right to dispute the requested payment amount, but must authorize release of the funds on the payment due date even if the dispute is not yet resolved. As of the Closing Date, the amount of funds in the NDT that will be available to ADP NRC Licensee to pay for ADP NRC Licensee's decommissioning expenses will be equal to the Agreed Amount. In the event that DEF fails to direct the NDT Trustee to timely issue payment to ADP NRC Licensee, DEF will make payment for any incremental costs incurred by ADP NRC Licensee due to the lack of timely payment, including but not limited to hotel costs, demobilization and remobilization costs, interest expense, etc.	
	Contractor will perform the decommissioning activities in accordance with an agreed schedule (the " Schedule ") and obtain NRC approval of partial license termination to reduce the NRC licensed area at the CR-3 Site to ISFSI only and to release all other land in the CR-3 Site licensed area from the NRC License on or before the End Date	
	The Schedule will include milestones for the completion of the decommissioning activities to be completed by ADP NRC Licensee under the Decommissioning Services Agreement, such as:	
Schedule Requirements:	 Submittal to NRC of "License Termination Plan" information to amend the NRC License to ISFSI-only, e.g., site release criteria, survey plans, etc. [within months or years] after the Closing Date 	
	 Major Equipment Removal – pressurizers, steam generators, reactor coolant pumps, reactor vessel internals, and primary system loop piping – [within months or years] after the Closing Date 	
	 NRC approval of partial license termination reducing the NRC licensed area at the CR-3 Site to ISFSI only and releasing all other land in the CR-3 Site licensed area from the NRC License by the End Date (as adjusted if the Closing occurs later than [insert date]) 	
	The parties will agree on (i) critical milestones, in addition to the End Date, which if missed will trigger certain consequences and (ii) events that will trigger adjustments to the Schedule.	

Crystal River Unit 3 (CR3) Decontamination & Decommissioning

	ADD NDC Licenses shall assume the following licelilities								
Assumed Liabilities:	ADP NRC Licensee shall assume the following liabilities:								
	All liabilities and obligations of DEF or its affiliates for the radiological decommissioning for the CR-3 Facility and the CR-3 Site, and eventually for termination of the NRC License, including without limitation any applicable obligations under local, state and federal law								
	All Environmental Liabilities other than Excluded Environmental Liabilities								
	All obligations under the NRC License								
	"Environmental Liabilities" means								
	 Any liability due to, arising out of or relating to the disposal, storage, transportation, discharge, release, recycling, or the arrangement for such activities of hazardous substances (broadly defined) from the CR-3 Site 								
	 The presence of hazardous substances in, on or under the CR-3 Site regardless of how the hazardous substances came to rest at, on or under the CR-3 Site 								
	 the failure of the CR-3 Site to be in compliance with any environmental laws 								
	 any other act or omission, or condition existing with respect to CR-3 or the CR-3 Site, which gives rise to any liability under environmental laws 								
	"Excluded Environmental Liabilities" means:								
	 All Environmental Liabilities existing as of the Closing and not disclosed to ADP NRC Licensee that are known to, or should reasonably have been known (without independent investigation or inquiry) by, specified officers and employees of DEF or its affiliates 								
	 All Environmental Liabilities relating to the Switchyard or the other Excluded Facilities to be preserved for DEF, other than liabilities for radiological decommissioning 								
Required Regulatory Approvals:	NRC approval for transfer of the NRC License and conforming amendments (naming ADP NRC Licensee as operator and owner licensee)								
	 The parties will agree to submit information to the NRC regarding decommissioning funding financial assurance arrangements, including use of the NDT, in order to obtain approval for the license transfer 								
	 ADP NRC Licensee shall only be entitled to rely upon the amounts in the NDT equal to its fixed price for purposes of satisfying all NRC requirements 								
	State & Local approvals, as required								
	Each party will bear its own costs of obtaining the required approvals								
Financial and Other Security:	ADP NRC Licensee is a special purpose entity formed by the Parent Companies for the purposes of the Project, and it shall:								
	• provide guarantees to DEF of the payment and performance, when due, of all obligations of ADP NRC Licensee, from each of its Parent Companies or their respective parent companies with a financial condition acceptable to DEF, in form and content to be agreed to by the parties (the " Parent Guaranty ")								
	• at the Closing, cause the equity interests in ADP NRC Licensee to be pledge as collateral for the obligations of the Parent Companies (or their respective parent companies) under the Parent Guarantees								
	ADP NRC Licensee shall be structured to provide for "bankruptcy remoteness" from ADP NRC Licensee and its affiliates. At the Closing, a DEF representative will be appointed to the managing board of ADP NRC Licensee and the ADP NRC Licensee governing documents will be amended to include a unanimous vote requirement to approve specified actions of ADP NRC Licensee, including with respect to a voluntary bankruptcy filing and return to SAFSTOR. DEF's right to have a representative on the managing board of ADP NRC Licensee will continue until the End-State Conditions are achieved. The structure shall be sufficiently robust such that at the Closing, outside counsel for ADP NRC Licensee will provide a legal opinion to the effect that ADP NRC Licensee would not be substantively consolidated in a bankruptcy of any of the Parent Companies or any of								
	their respective affiliates (i.e., a non-consolidation opinion)								

Crystal River Unit 3 (CR3) Decontamination & Decommissioning

	 Under the Pledge Agreement, DEF will have the right (exercisable in its sole discretion) to take possession of and exercise voting control over the collateral (subject to applicable regulatory approvals, including the NRC) in the case of an event of default, including: Bankruptcy of any Parent Company or any of their affiliates Material default under any loan obligations of any of the Parent Companies or any of their affiliates which is not cured within applicable periods of grace or not waived by the applicable lenders Any failure of a Parent Company to meet tangible net worth or other specified financial covenants, including but not limited to a failure resulting from a transfer of its assets to a transferee entity (third party or affiliated), unless the obligations of such Parent Company under its respective Parent Guarantee are assumed by a transferee whose financial condition is acceptable to DEF or ADP NRC Licensee posts additional financial assurance, as agreed in the Transaction Documents The occurrence of an event of default under any Transaction Document
	Licensee to post a letter of credit or provide additional financial security in addition to the Parent Guarantees as a condition to Closing, and as discussed above may require additional financial assurance post-Closing based on the financial condition of the Parent Companies.
Conditions to Closing:	 Conditions to obligations of the parties to close the Decommissioning Services Agreement and Spent Nuclear Fuel Purchase and Sale Agreement and begin performing their respective decommissioning obligations as contemplated in the Transaction Documents (the "Closing") will include: No injunction, order or decree restraining consummation of transactions Receipt of all Required Regulatory Approvals, without requiring DEF to provide any additional financial assurances Execution and delivery of the other Transaction Documents by the parties Compliance with covenants (customary, to be agreed upon) in all material respects and receipt of officer's certificates from each party certifying the same Reps and warranties (customary, to be agreed upon) of each party that is qualified by materiality shall be true and correct, and all others shall be true and correct in all material respects as of the Closing, and receipt of officer's certificates from each party certifying the same No material adverse effect has occurred with respect to either party or CR-3 ADP NRC Licensee shall have provided the financial security and otherwise complied with its covenants as described under "Financial and Other Security," the pledge of the equity interests and delivery of a non-consolidation opinion
Termination:	 The Decommissioning Services Agreement will be terminable by the parties prior to the Closing: By mutual agreement By any party if a non-appealable court order, statute, rule, order or regulation is issued prohibiting any of the transactions By any party if any Required Regulatory Approval has been denied in a non-appealable order By the non-breaching party if the other party materially breaches any of its representations, warranties or covenants By DEF if an event of default of ADP NRC Licensee occurs By any party if Closing does not occur within three months following receipt of all Required Regulatory Approvals, unless the party seeking to terminate is responsible for any failure to meet any this condition to Closing

Crystal River Unit 3 (CR3) Decontamination & Decommissioning

	- Du pay porty if Closing doop not coour within one year fallowing the data of similar of the Decomposition in the							
	By any party if Closing does not occur within one year following the date of signing of the Decommissioning Services Agreement, unless the party seeking to terminate is responsible for any failure to meet any this condition to Closing							
Indemnification:	Each party will indemnify the other for all losses arising out of breaches of covenants and reps and warranties (customary, to be agreed upon)							
	ADP NRC Licensee will indemnify DEF against all Assumed Liabilities							
	 ADP NRC Licensee will indemnify DEF against all mechanics', material men's and similar liens and claims arising out of the performance of services or the furnishing of materials relating to ADP NRC Licensee's performance of the decommissioning activities and other obligations under the Transaction Documents 							
	 Subject to agreed baskets and caps, DEF will indemnify ADP NRC Licensee against all Excluded Environmental Liabilities 							
	Waivers of all punitive, consequential or special damages							
	The Transaction Documents will include:							
	a Decommissioning Services Agreement							
	a Spent Nuclear Fuel Purchase and Sale Agreement							
	 a Lease Agreement (and other rights to access the CR-3 Site as required for ADP NRC Licensee to perform its obligations under the NRC License) 							
Transaction Documents:	a Pre-Closing Decommissioning Services Agreement							
Documents.	Depending on the structure of ADP NRC Licensee and other matters, the Transaction Documents may include:							
	Parent Guarantee(s) from Parent Company(ies)							
	Pledge Agreement							
	 Other documents as may be required and mutually agreed to by DEF and ADP NRC Licensee to implement the transaction, in each case in form and substance satisfactory to the parties 							
	The Transaction Documents will not be assignable by ADP NRC Licensee without the consent of DEF.							
Assignment; Post-Closing Sale or Transfer:	ADP NRC Licensee will not, without having obtained DEF's prior written consent, transfer (or agree or apply to transfer): (i) the membership interests in ADP NRC Licensee, as applicable; or (ii) the NRC License, to any							
	third party. DEF will retain the right to receive notice of and provide comment on any removal of any Spent Nuclear Fuel or GTCC waste from the CR-3 Site.							
Miscellaneous:	Prior to the Closing, ADP NRC Licensee and DEF will establish a management committee made up of executives from each party that will remain in place and meet at least quarterly until achievement of the End-State Conditions, and no less than annually thereafter. This committee will meet for purposes of information sharing and tracking of satisfaction of the conditions to Closing, and Project execution following the Closing, including Project performance costs and trust fund performance.							
	ADP NRC Licensee and DEF will perform their obligations under the various agreements in compliance with all applicable laws and permits, including the NRC License.							
	During the decommissioning, DEF shall have reasonable access to any portions of the CR-3 Site controlled by ADP NRC Licensee, subject to the requirements of the NRC License, and to ADP NRC Licensee personnel, for purposes of monitoring the performance by ADP NRC Licensee of its obligations under the Transaction Documents.							

Appendix 2 – ADP Decommissioning Experience

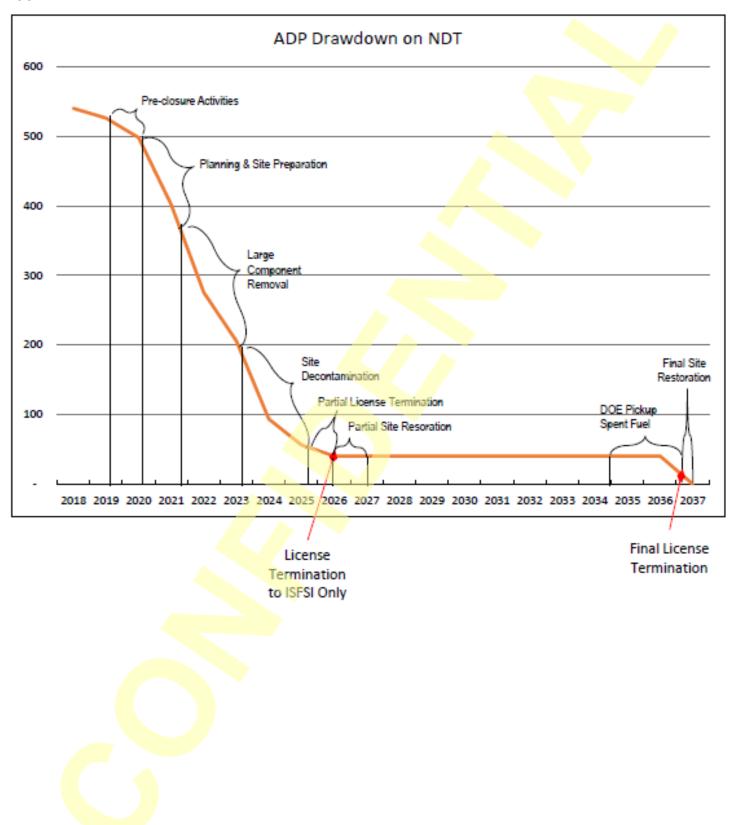
The ADP Team companies have performed several hundred small to medium size projects a year. NorthStar is the largest demolition company in the United States and executes hundreds of projects a year. Orano is a global supplier of nuclear materials and services and their list of projects is extensive

The ADP Team has participated in the decommissioning of many of the major nuclear decommissioning projects in the US and overseas. ADP is an already fully-formed alliance of NorthStar and Orano in an existing joint venture created specifically for the purpose of nuclear power plant decommissioning including the Vermont Yankee plant. The following figure provides an overview of the ADP Team Qualifications:

					· · · · ·								
					Scope of Work								
PROJECT NAME	Prime Contractor	Subcontractor	Contract Structure	Completion Date	D&D Planning	Reactor Disassembly	Decontamination	Systems and Components Removal	Structural Demoilition	Radio logical Assessments, Work Coverage, Monitoring	Radiological Waste Packag- ing, Transportation, Disposal	Clean Waste T&D	Final Status Surveys
Duke Energy – Gibson Station	~		*LS/UR	2017			1						
Duke Energy – HF Lee Power Gen. Station	~		*LS/UR	2016			~						
Duke Energy – WC Beckjord	~		*LS/UR	2018			~						
Duke Energy-Gibson Station SALF	~		*LS/UR	2016			1						
Duke Energy-Former Kinston, NC MGP Site	~		*LS/UR	2015			1						
Duke Energy-Sanford MGP Site	~		*LS/UR	2013			1						
Duke Energy-Ward Transformer	~		*LS/UR	2011			1						
Argonne National Laboratory, Chicago Pile 5		~	T&M	2000					~	1			
Brunsbüttel (BWR)		~	FFP	2022		1							
Cadarache MOX Plant	~	~	Owner	2017	1		1	~	~	1	~		1
Conn Yankee (PWR)		×	T&M	2007	~	~							
Dounreay Fast Reactor		×	Task Order	2004	~			~					
GB1 Enrichment Plant	~	1	T&M	2023	~		1	~	~	~	~		~
Hanford 308, 309, 340		1	FFP	2015	~			~	~		~		
Hanford AY102	1		T&M	2017	1		1	~		1	~		
Iowa State University UTR-10 Reactor	1		T&M	2000	~	~							~
Krümmel (BWR)		~	FFP	2022		~							
La Hague UP2-400	1	~	Owner	On-going	~		1	~	~	~	~		~
Los Alamos - Omega West reactor		~	T&M	2015		~							
Maine Yankee (PWR)		1	FFP	2001	1	~					~		
Marcoule UP1	1	1	T&M	2030	~		1	~	~	1	~		~
Millstone-1 (BWR)		1	FFP	2004		~		~			~		
MZFR research reactor (Germany)	1		Task Order	2003		~							
NASA's Plum Brook Nuclear Facility		~	T&M	2006	~								
Neckarwestheim Unit 2 (PWR)		 	FFP	2025		~							
Oak Ridge Y-12 National Security Complex Building 9211 and 9769	× .		FFP	2010	1				1		1		
Osiris research reactor (France)		~	FFP	2012		~				~			
Phebus research reactor (France)		~	FFP	2009		~							
Phillipsburg Unit 2 (PWR)		~	FFP	2025		~							
Rancho Seco (FWR)		1	FFP	2006		1							
Rapsodie research reactor (France)		~	FFP	2005	~								
Savannah River Site Cooling Towers		~	FFP	2010	~							~	
Sellafield - UK		~	T&M	2021	~								
SICN Fuel Plants	~	~	Owner	2011	~		1	~	~	1	~		~
Stade (PWR)		~	Task Order	2009		~							
UK Magnox Sites		~		2013	~								
University at Buffalo D&D	×.		FFP	2015	×.	×.	×.	×.	1	×.	× .	×.	1
University of Arizona TRIGA	1		FFP	2010	1	~	1	1		1	1	1	1
University of Illinois TRIGA	1		FFP	2012	~	~	1	1	~	1	× .	1	1
University of Washington D&D	~		FFP	2007	~	×.	1	~		~	~	1	1
Vermont Yankee (BWR)		×.	FFP	2020		×.							
Würgassen (BWR)		~	Task Order	2010		~							
Yankee Rowe (PWR)		~	Task Order	2007	~	~					~		~
Figure 3-8: ADP Team Qualifications.													

TRC Meeting Date: March 19, 2019

Appendix 3 – Financial Data



Crystal River Unit 3 (CR3) Decontamination & Decommissioning

