











### **Vermont Yankee Nuclear Power Station Decommissioning – NDCAP Meeting**

#### **Site Restoration Standards**

Scott State, P.E., - NorthStar, CEO September 28, 2017





## Introductions

Scott E. State, P.E. Chief Executive Officer (CEO) NorthStar Group Services, Inc.



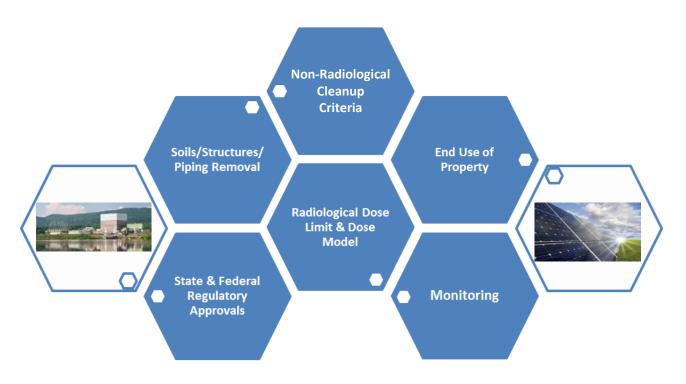






#### License Transfer Transaction Objective

Site Restoration Standards generally consistent with those of other regional decommissioning projects







- Transaction closing is contingent on, among other things, PUC approving Site Restoration Standards generally consistent with those proposed by NorthStar
- NorthStar has proposed standards compliant with State/Federal regulations and based upon criteria used at regional decommissioned plants, including among others:
  - Best/End Use of Property
  - Radiological Dose Limit
  - Dose Model
  - Non-Radiological Cleanup Criteria
  - Sub-Surface Structures/Piping





- End Use of the Property
  - NorthStar proposes light industrial/industrial use
- Radiological Dose Limit
  - NorthStar has proposed a 15 mrem/year dose limit for all pathways
- Radiological Dose Modelling
  - A "basement fill model" is being used to determine the amount of residual radioactivity that may remain in any below-grade structures left on-site or building materials that will be used as backfill
    - RESRAD and other codes will be used to calculate release criteria of remaining structures to satisfy the Radiological Dose Limit
    - This approach was accepted by NRC and other regulators for selected subsurface structures at Connecticut Yankee, Yankee Rowe and Maine Yankee.
  - A "resident farmer scenario" to be used to model potential exposure to radioactivity in soil
    - The resident farmer scenario is considered to be the most conservative dose modeling scenario in the industry.





- Non-Radiological Clean-up Criteria
  - Compliance with the industrial standards set forth in the April 2012 version (effective as of submission of the application) of the Vermont Investigation and Remediation of Contaminated Properties Procedure (IROCPP).
- Sub-Surface Structures/Piping
  - NorthStar proposes to remove underground structures including building foundations, buried piping and contained piping – to a depth of 4 feet below existing site grades.
  - Certain structures may be removed to a greater depth if required to meet the site release criteria.
  - Recycled concrete that is consistent with the applicable radiological and non-radiological standards for decommissioning and site restoration will be reused at the site.





With active input from the host community, public stakeholders, and regional planning experts, NorthStar will evaluate highest and best use of the site prior to completion of the decommissioning and partial site release.

Preliminary / conceptual site uses may include:

- Light industrial / industrial
- Microgrid
- Solar Power Facility







# **Questions?**