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What Nuclear Reactor Companies Need

Scott Bailey

Vice President, Supply Chain



Acknowledgement & Disclaimer

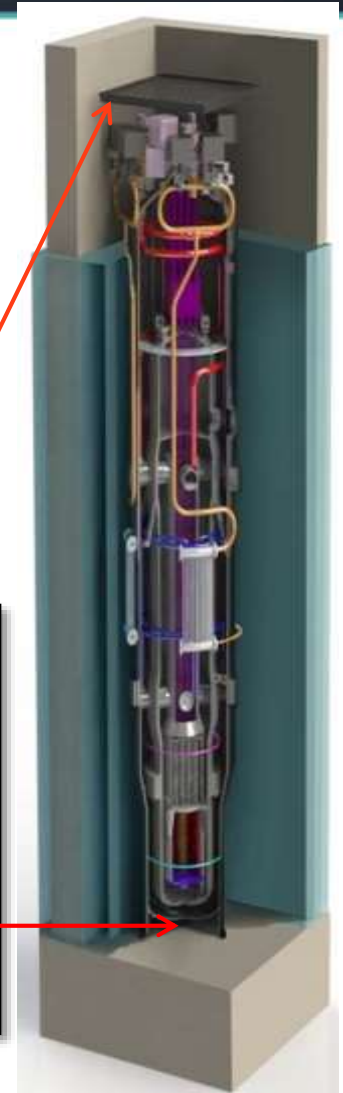
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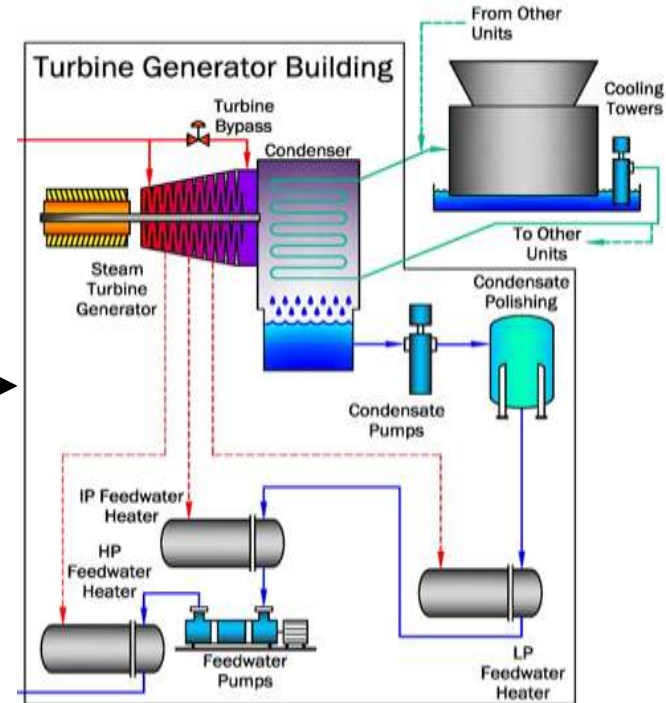
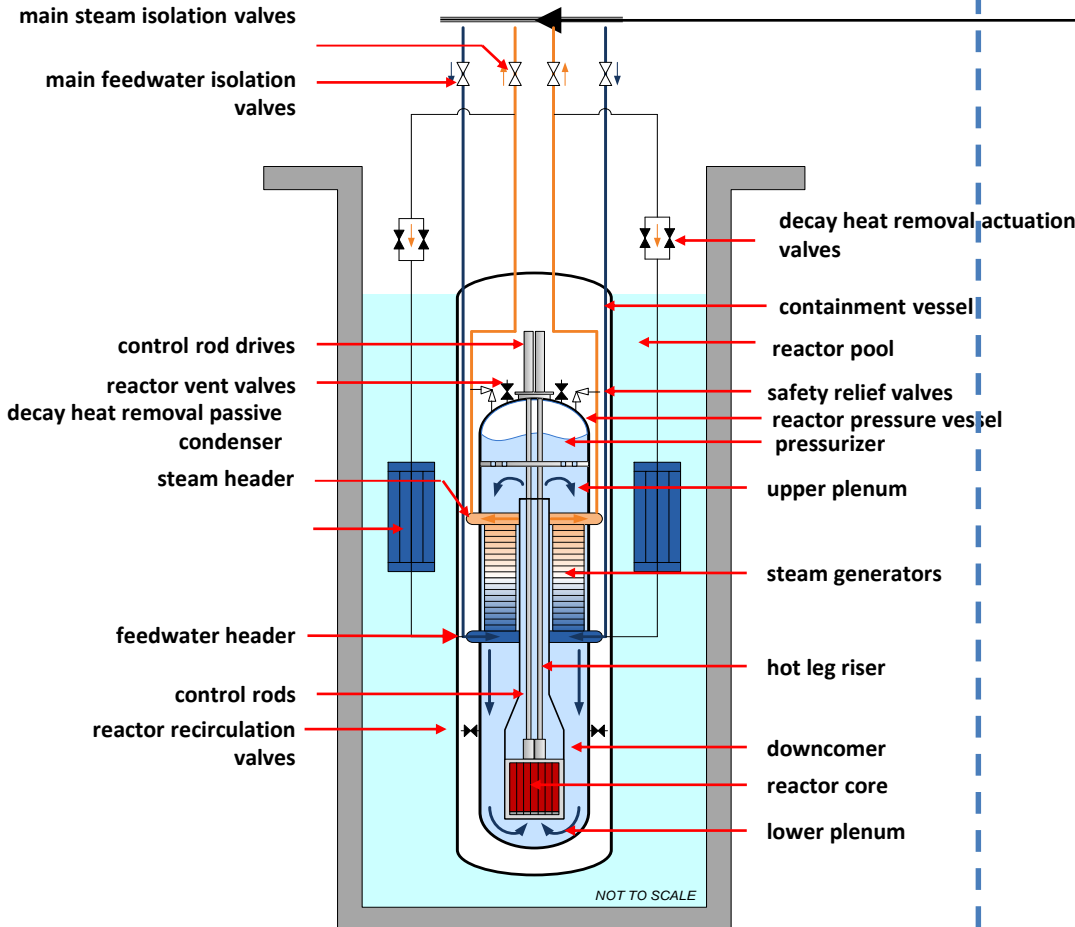
NuScale Update and Status

What is a NuScale Power Module?

- A NuScale Power Module (NPM) includes the **reactor vessel, steam generators, pressurizer** and **containment** in an integral package that eliminates reactor coolant pumps and large bore piping (no LB-LOCA)
- Each NPM is 50 MWe and factory built for easy transport and installation
- Each NPM has its own skid-mounted steam turbine-generator and condenser
- Each NPM is installed below-grade in a seismically robust, steel-lined, concrete pool
- NPMs can be incrementally added to match load growth - up to 12 NPMs for 600 MWe gross (~570 net) total output

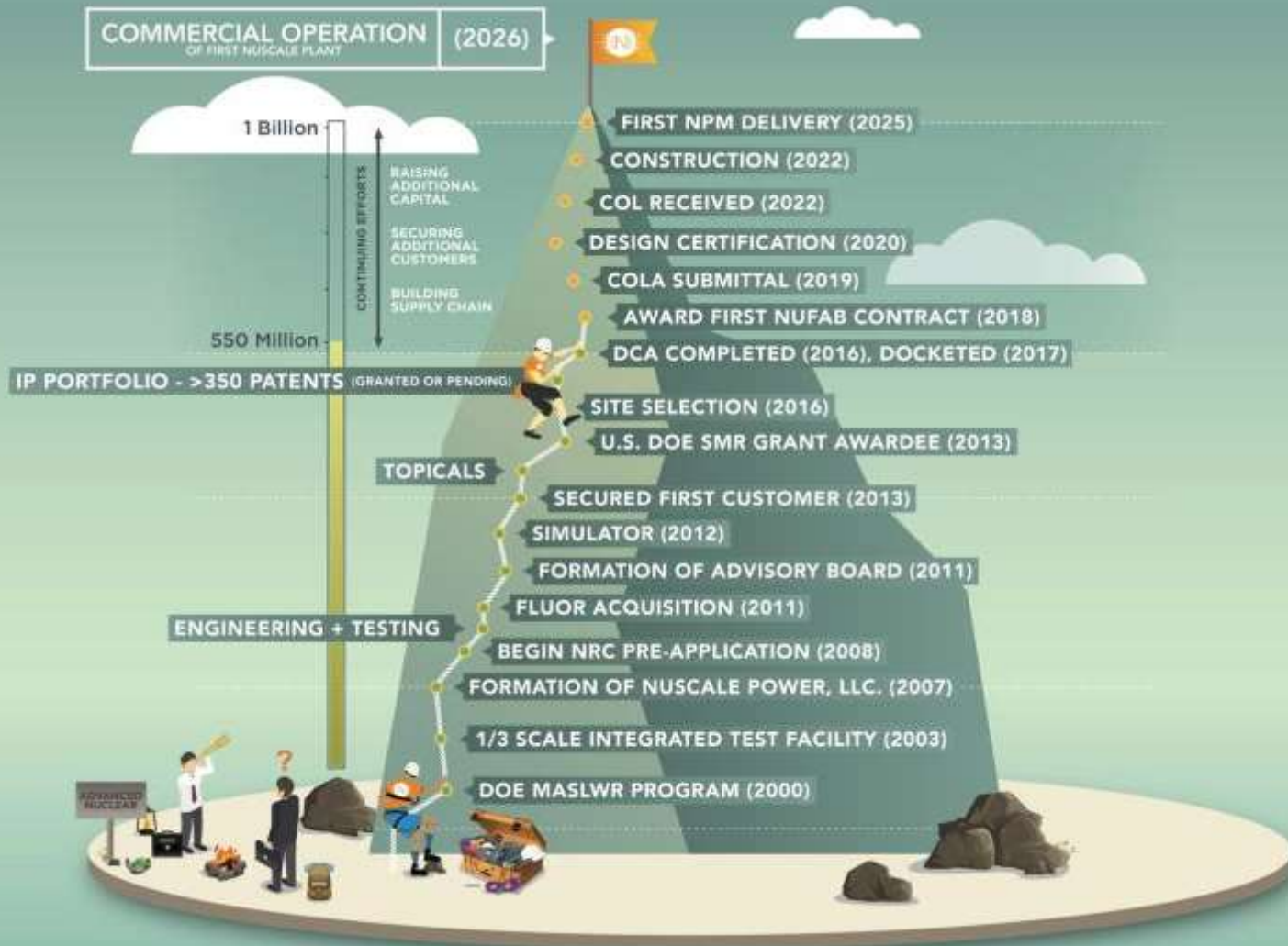


Division of Responsibilities



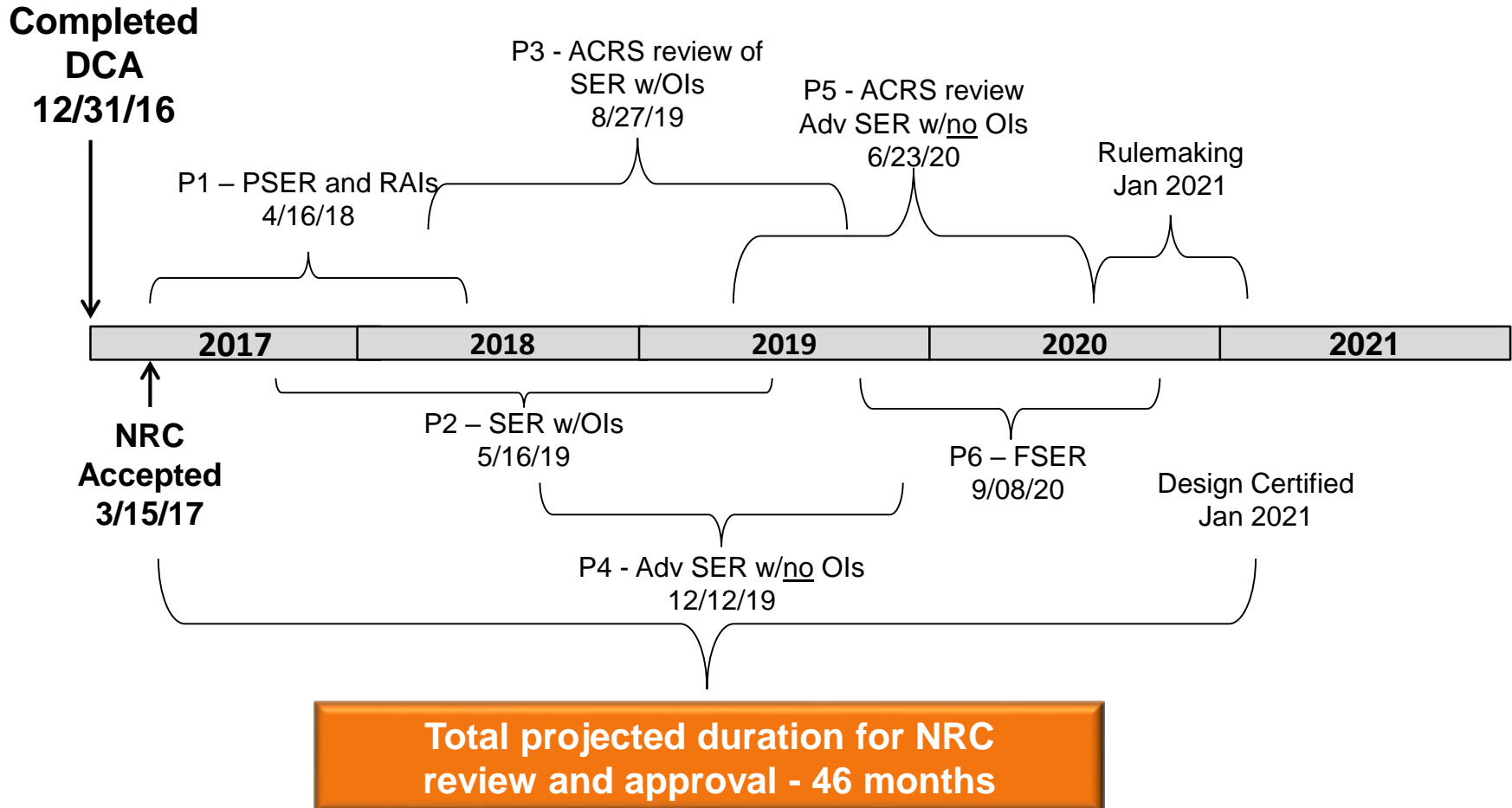
- Each NuScale power module feeds one turbine generator (TG) train eliminating single-shaft risk
- 100% turbine bypass capability
- Small, simple components support short, simple refueling outages

Blazing the Trail to Commercialization



Achieving a Successful Review

NuScale Baseline DC Review Schedule

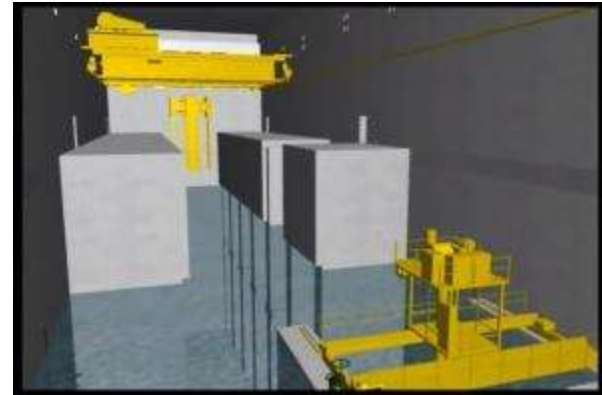
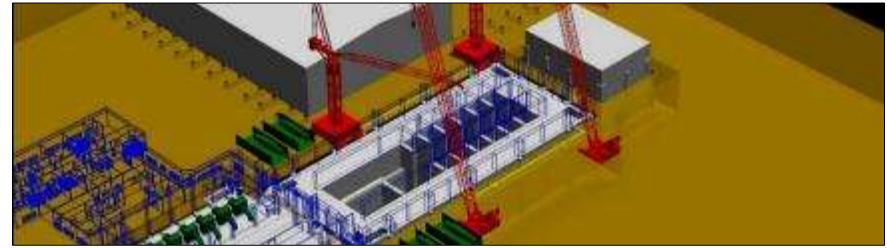


The NuScale Supply Chain

The Paradigm Shift

- Unique—not like a traditional power plant
- Steady-state manufacturing vs. construction job
- Select and develop a set of supplier partners for all NuScale plants, not a bid list for one plant
 - close partnerships are critical
 - pricing models and terms negotiated in advance
 - suppliers are vested in the long term viability of NuScale
 - standard specifications

The NuScale Plant (By The #'s)



- Over 830,000 sqft of buildings
- Over 7 million linear feet of wire and cable
- Over 40,000 Valves
- Over 190,000 cy of Concrete
- Over 160,000 linear feet of pipe
- Over 12,000 instruments
- Over 6500 tons of steel
- Over 3600 I/O points
- Over 1.5 million feet of conduit
- Over 50,000 linear feet of cable tray
- Over 575 misc. electrical components
- Over 1400 misc. mechanical components

Manufacturing Jobs

Manufacturing Jobs @ 3 Plants per year	11,788
Instrumentation and controls equipment	2,254
Electrical equipment	2,088
Mechanical equipment	1,630
Valves	1,186
Civil Material/Steel/Architectural	1,050
NuScale Power Modules	1,000
Wire, Cable tray and conduit	780
Steam Turbines	710
Piping	666
Control Rod Drives	204
Pressure Vessel Forgings	120
Nuclear Cranes	71
Fuel Fabrication	29

Supply Chain Focus Areas

- Production line suppliers vs low volume suppliers
- Maintain Standardization (GD&T windows, interfaces)
- Design for Manufacturing, Assembly, Transport
 - Iterative Design (listening to suppliers)
 - Component prototyping
- Sustaining a long term supply chain
- Uniquely positioned to take advantage of advanced manufacturing techniques (shop based fab)

Supply Chain Focus Areas (cont)

- Protection of Intellectual Property
- Selecting suppliers willing to adapt (CC on ballot)
- Selecting suppliers with nuclear safety culture
- Impact to schedules
- Transitioning to a purpose built factory
- Made in America – Support domestic growth

Supplier Characteristics

- Vested partners “skin in the game”
- Protection of Intellectual Property
- Production line suppliers vs low volume suppliers
- Selecting suppliers willing to adapt
- Selecting suppliers with nuclear safety culture
- Made in America – Support domestic growth

NPM Fabrication RFP

NuFAB

- November 3, 2016
- Atlanta, GA
- 108 Attendees – 83 different companies
- 10 countries
- Challenge: Find a fabricator for the NuScale Power Module (NPM) that can meet the cost, schedule and quality requirements for NuScale.

Heard the latest?

NuScale is looking for fabrication partners to help build its revolutionary Small Modular Reactor.

Announcing

NUFAB™
PARTNERING FOR FABRICATION

A One-Day, Invitation Only Event for Potential Supply Chain Partners
November 3, 2016 in Atlanta, Georgia.

Who Should Attend?

This event is for senior executives and key decision makers from:

- Companies with ASME nuclear certifications for pressure vessels
- Companies with large equipment fabrication or pressure vessel production experience
- Companies interested in developing a manufacturing supply chain for NuScale
- Companies interested in becoming a partner with NuScale
- Companies interested in being a consortium partner with pressure vessel fabrication companies

This event will kick-off the selection process for qualified and capable manufacturers who can participate in fabrication of the NuScale Power Module™. If you are interested in participating in the NuScale supply chain for the fabrication of the NuScale Power Module, you should attend this event.

All day conference and meeting events are scheduled for November 3, 2016, preceded by a reception on the evening of November 2, 2016. Formal invitations and a detailed agenda will be sent out later in September.

This event is invitation only.

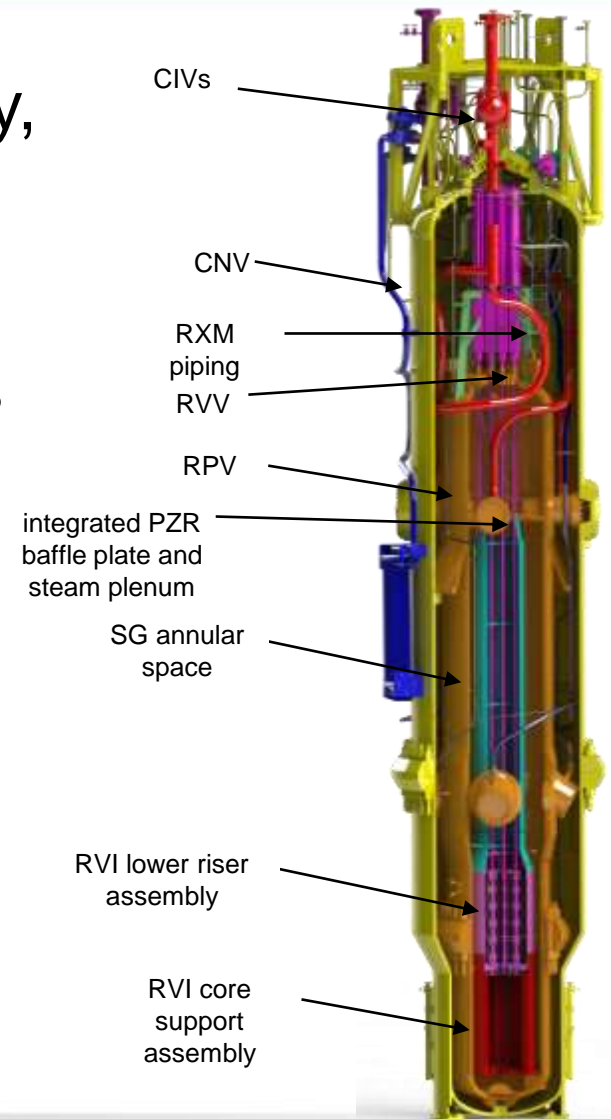
Due to high expected demand, attendance is limited to two people per company.

To request an invitation or for more information about future NuScale events, please follow the link to <https://www.etouches.com/esurvey/nufab>.

"Become part of an elite team. Join NuScale Power in building a clean energy solution to the world's energy needs."

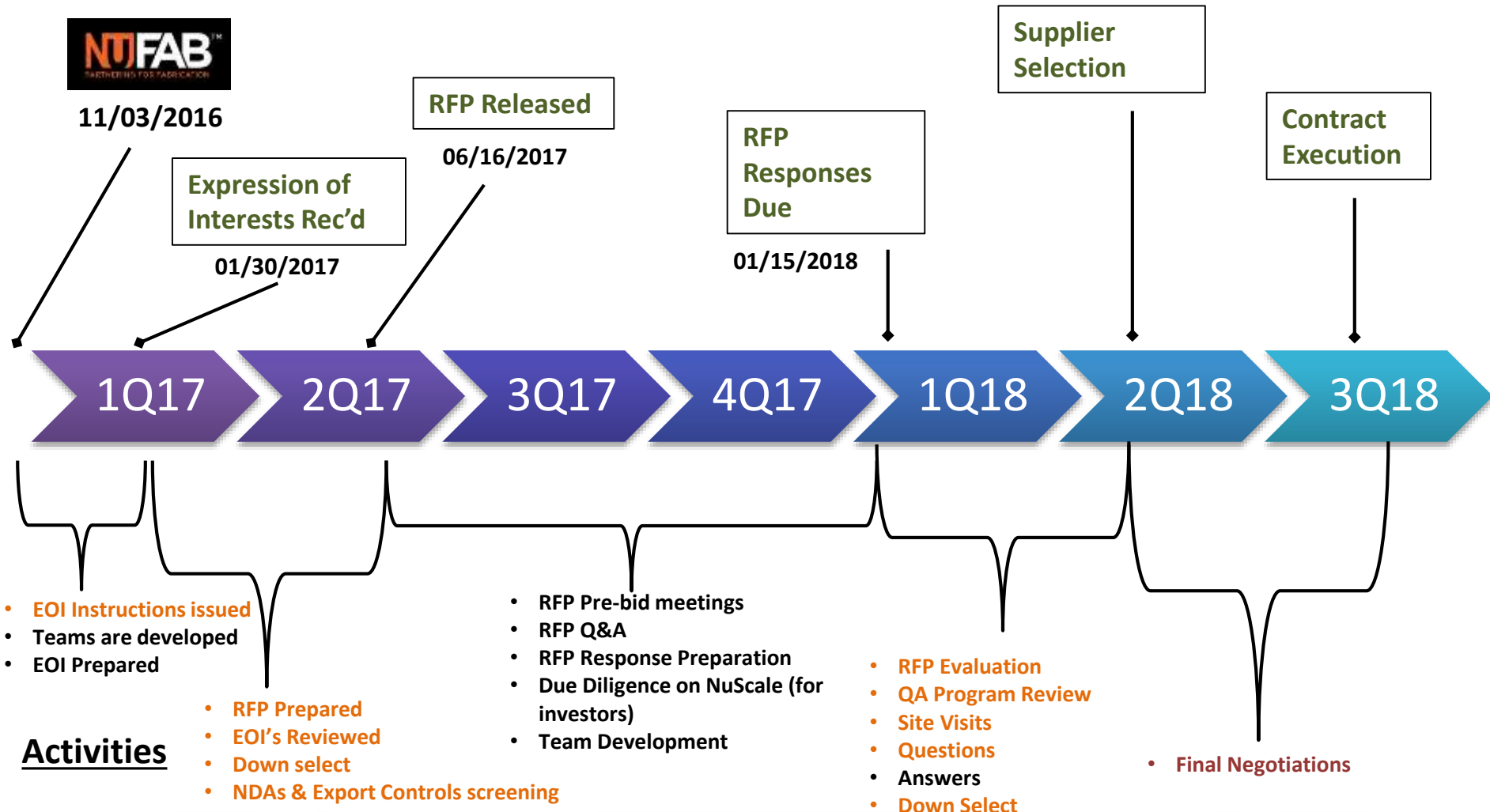
Supplier Scope - Base

- Refine the design for manufacturability, assembly and transportability
- Prepare for fabrication
- Fabricate 12 NuScale Power Modules
 - Containment Vessel
 - Reactor Vessel
 - Reactor vessel internals and piping
 - Steam Generator
 - Assembly and testing, including ITAAC support
 - Install equipment from other OEMs
- Value \$350M - \$400M in fabricator scope per plant



Selection Process Timeline

Milestones



6650 SW Redwood Lane, Suite 210
Portland, OR 97224
971.371.1592

1100 NE Circle Blvd., Suite 200
Corvallis, OR 97330
541.360.0500

11333 Woodglen Ave., Suite 205
Rockville, MD 20852
301.770.0472

2815 Coliseum Centre Dr., Suite 230
Charlotte, NC 28217
980.349.4804

1933 Jadwin Ave., Suite 130
Richland, WA 99354

1st Floor Portland House
Bressenden Place
London SW1E 5BH
United Kingdom
+44 (0) 2079 321700

<http://www.nuscalepower.com>

Twitter: @NuScale_Power

