

# STATE OF CONSTRUCTION: MANAGING RISKS

Presented by: Michael Campo and Nathan Miller

# FIVE COVID-19 DRIVEN CONSTRUCTION TRENDS

1

Increase in Public Spending

4

Worker Safety

2

Societal Needs

5

Project Dynamics

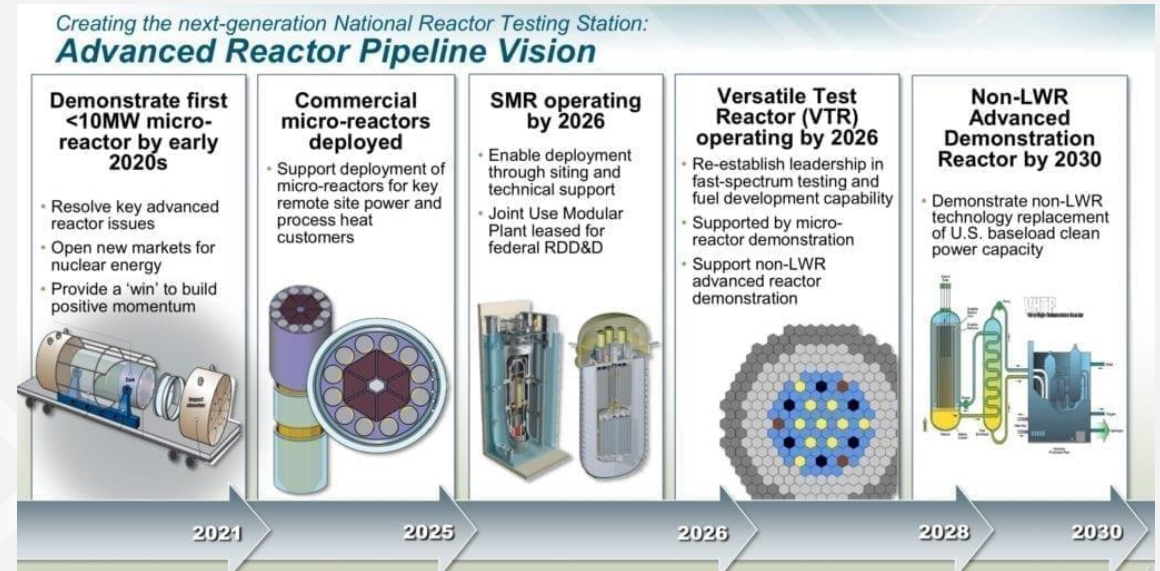
3

Increased Digital Workflows

# DOE LAUNCHES PROGRAM TO DEMONSTRATE ADVANCED NUCLEAR REACTORS WITHIN 5 YEARS

Bolstered by \$230 million in Congressionally appropriated funding, the Department of Energy (DOE) has officially launched the Advanced Reactor Demonstration Program (ARDP) to help U.S.-based private developers of advanced nuclear reactors demonstrate their technology in the U.S.

Much anticipated by industry, the program formally established under the Office of Nuclear Energy program on May 14 is one of three major government-led and Congressionally supported initiatives to boost U.S. nuclear energy research and development. Congress has also appropriated \$305 million for fuel cycle research and development, and \$267 million for reactor concepts research, including for the industry-led Advanced Reactor Concepts program and the Versatile Advanced Test Reactor.



*The National Reactor Innovation Center at Idaho National Laboratory provides resources for testing, demonstration, and performance assessment to accelerate deployment of new advanced nuclear technology concepts. These are some milestones and a tentative timeline the facility could achieve over the next decade. Source: INL*

**POWER**

www.powermag.com



May 14, 2020  
by Sonal Patel

# INCREASE IN PUBLIC SPENDING

1

## Increase in Public Spending

Infrastructure / Water

Government

Military

| Spending | March 2020  | %     |
|----------|-------------|-------|
| Private  | \$1,012,543 | 77.5% |
| Public   | \$347,969   | 22.5% |
| Total    | \$1,360,512 | 100%  |

In \$ millions



## Risks

Estimation Risk as projects tend to be “Hard Bid”

Federal Work

- Violation of Federal Acquisition Regulation
- Violation of False Claims Act

Beware of “No-Poach” agreements in JV agreements

# SOCIETAL NEEDS

## 2

### Societal Needs

Tenant Improvements vs Ground Up

Reconfiguration of premises

Cleaning / Decontamination Services

National Security Items

- Information & Communication Technology
- Energy
- Pharmaceutical
- Food



# TYPES OF PROJECTS

## Projected Increase

- ICT Infrastructure
- Warehouses
- Street and Road
- Apartments
- Food Plants
- Data Warehouse
- Manufacturing
- ICT
- Bulk Power
- Food Processing
- Pharmaceutical
- Medical PPE

## Projected Decrease

- Hotel / Motel
- College / University
- Restaurant (ground up)
- Amusement
- Office

# TRUMP BAN ON FOREIGN BULK POWER EQUIPMENT

## TRIGGERS NEW UNCERTAINTY

Beginning on May 1, the order bans the “acquisition, imports, transfers, or installation” of any risk-ridden BPS electric equipment by any person or property subject to U.S. jurisdiction of any property in which a “foreign country or a national” has any interest, including “through an interest in a contract for the provision of the equipment.”

The risk aspect of such transactions, however, will be determined by the Energy Secretary, who will coordinate with the director of the White House’s Office of Management and Budget (OMB), and consult with the Defense Secretary, the Homeland Security Secretary, the director of National Intelligence, and other agency heads.

Prohibited transactions primarily cover pending and future deals for BPS equipment that have been designed, developed, manufactured, or supplied by vendors and individuals subject to the jurisdiction of a “foreign adversary”—or, essentially, governments that have repeatedly threatened national security.

The definition of BPS “electric equipment,” meanwhile, appears limited. It covers:

**-Substations**

**-Control rooms**

**-Power generating stations, to include:**

- reactors
- capacitors
- substation transformers
- current coupling capacitors
- large generators
- backup generators
- substation voltage regulators
- shunt capacitor equipment
- automatic circuit reclosers
- instrument transformers
- coupling capacity voltage transformers
- protective relaying
- metering equipment
- high-voltage circuit breakers
- generation turbines
- industrial control systems (ICS)
- distributed control systems (DCS)
- safety instrumented systems (SIS)



# 3

## Increased Digital Workflows

- Tele business
- Data Warehouses
- Warehouses

### Risks

- Cyber Risk
- Work From Home Concerns
- Mental Health of Employees





# 4

## Worker Safety

More Union Involvement

OSHA

Augmenting Safety

Mental Health



# 5

## Project Dynamics

Contractor Prequal / Bonding

Prefabrication / Modular

Design-Build Project Delivery

Longer timeframes

Greater documentation

## Risks

Riggers Liability

Transportation

Product vs. Completed Operations Exposure

AHJ Requirements

Permits and Inspectors

