



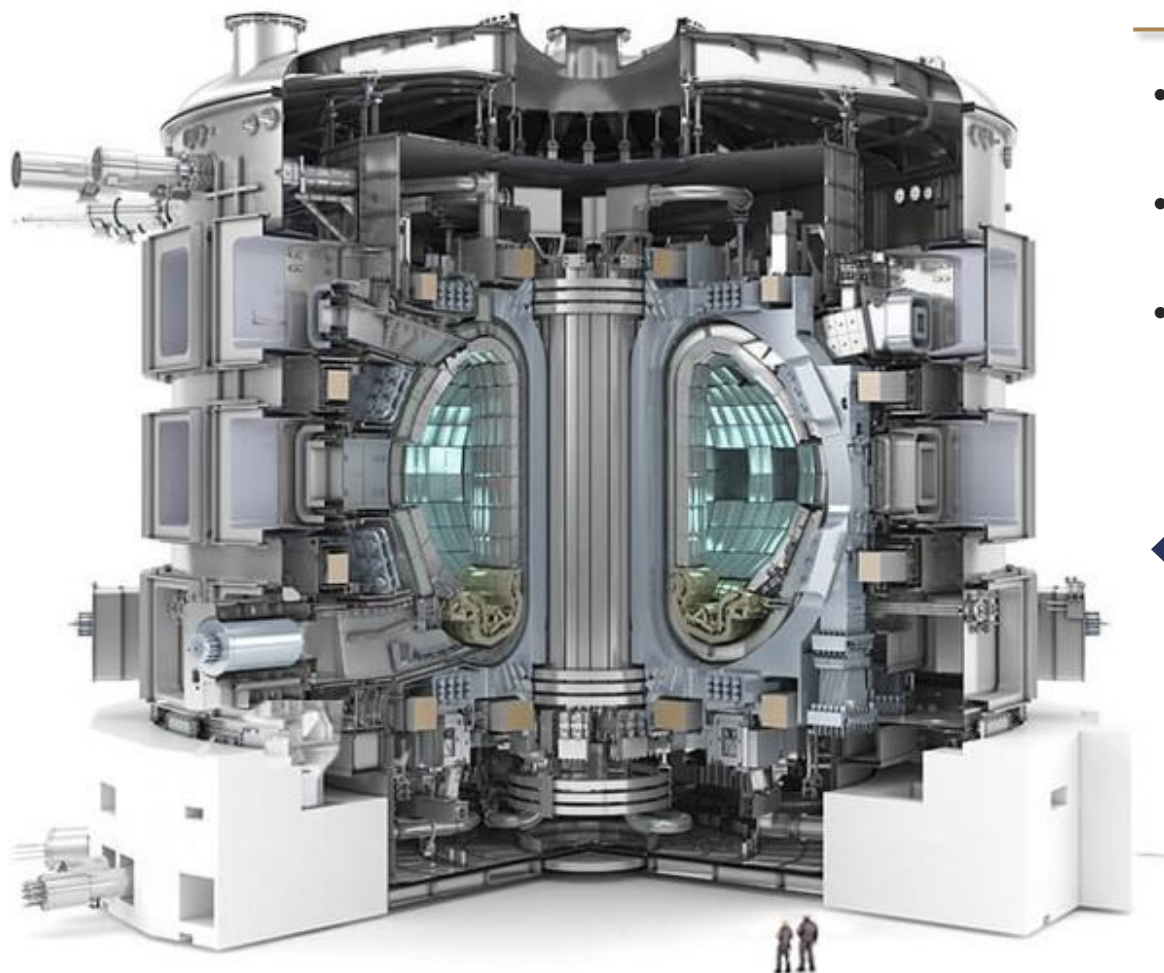
MARIETTA PROJECT

MAHONING-MARIETTA
MANUFACTURING CORRIDOR

M3C



EUROPEAN FUSION LEADERSHIP



Technological Leadership:

- America has ceded its leadership to Europe and China
- Germany is emerging as a new Fusion leader building on the experience of ITER
- €18-22 billion in total investments

ITER
megaproject,
HQ, France

A Wasted Opportunity:

- USA is issuing \$20 billion a year in subsidies to fossil fuel companies that do nothing for economic growth

One year of US subsidies to fossil fuels is more than the ENTIRE budget of ITER



KRIPCHAK FOR CONGRESS

WHY FUSION?

One gram of fusion fuel yields as much energy as 11-13 tons of oil or coal

1.5 train cars (200 tons) of fusion fuel = 1 year of electricity for the entire USA

Fusion technology:

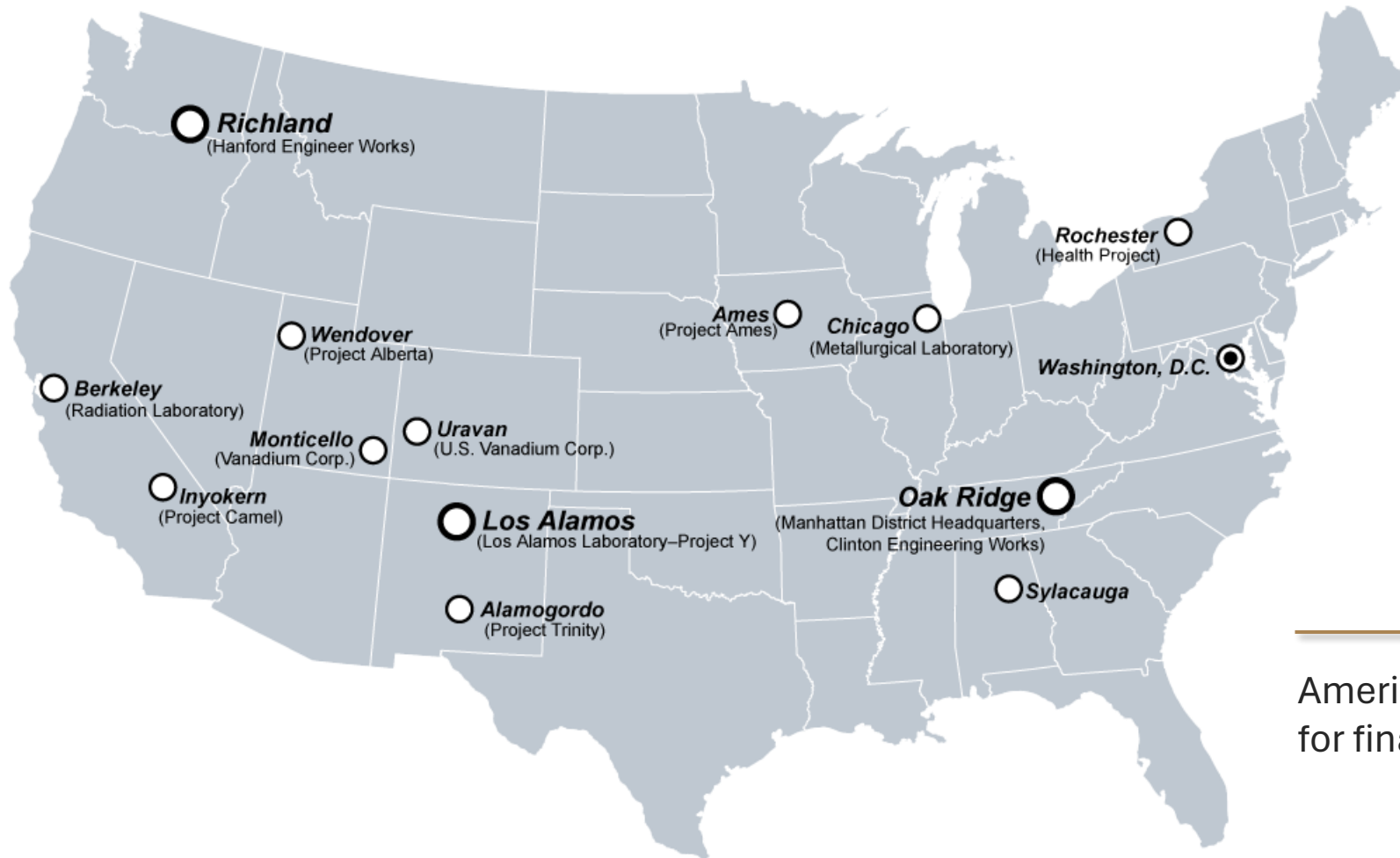
- Inexhaustible source of energy
- Environmentally clean
- Intrinsically safe
- Stable and reliable fuel source
- Byproduct (helium) is a valuable commodity
- Unlimited and **practically free** energy

THE POWER OF THE SUN IN OUR HANDS



KRIPCHAK FOR CONGRESS

THE MANHATTAN PROJECT



Highlights:

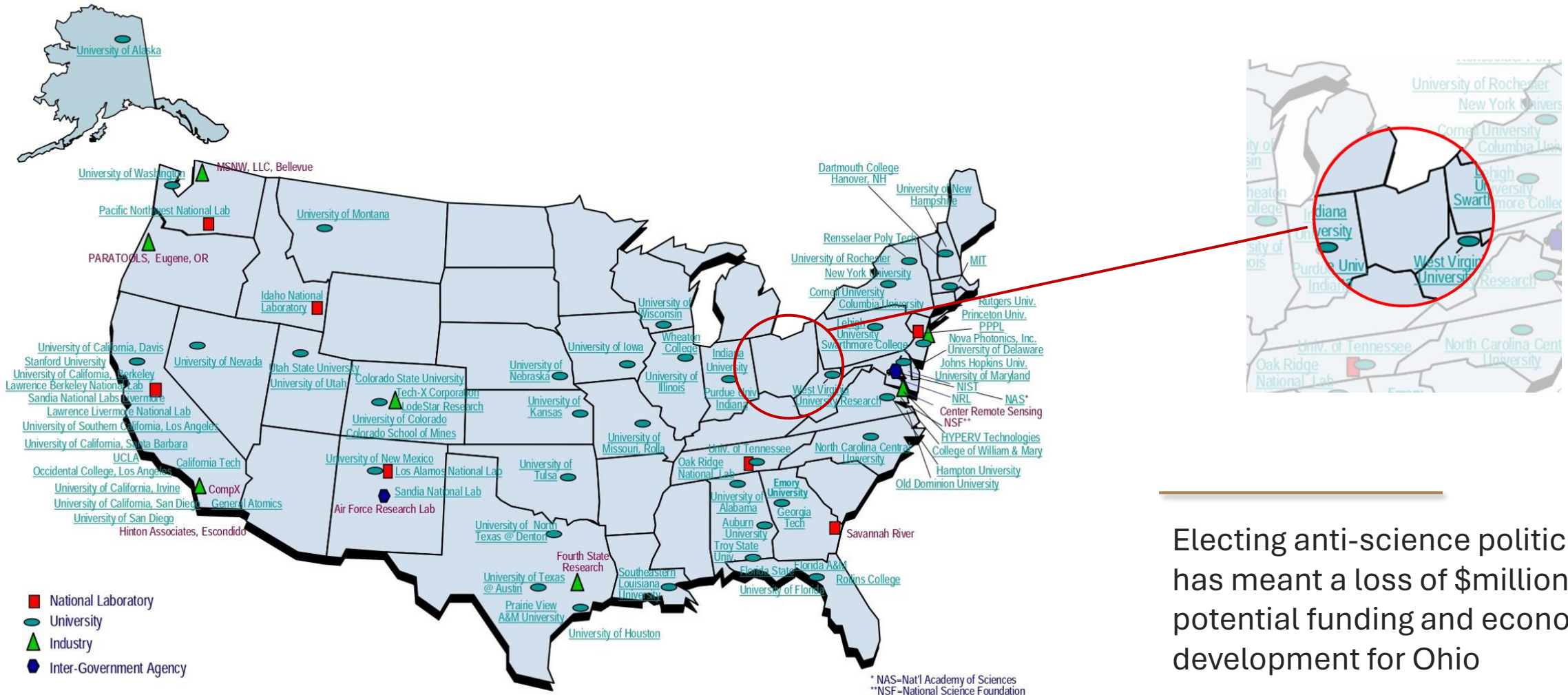
- \$32 billion (\$2 billion in 1945) in federal funding
- 129,000 jobs
- Put Los Alamos, NM and Oak Ridge, TN on the map

America's first megaproject – a model for finally commercializing Fusion



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CURRENT (DISJOINTED) FUSION EFFORTS

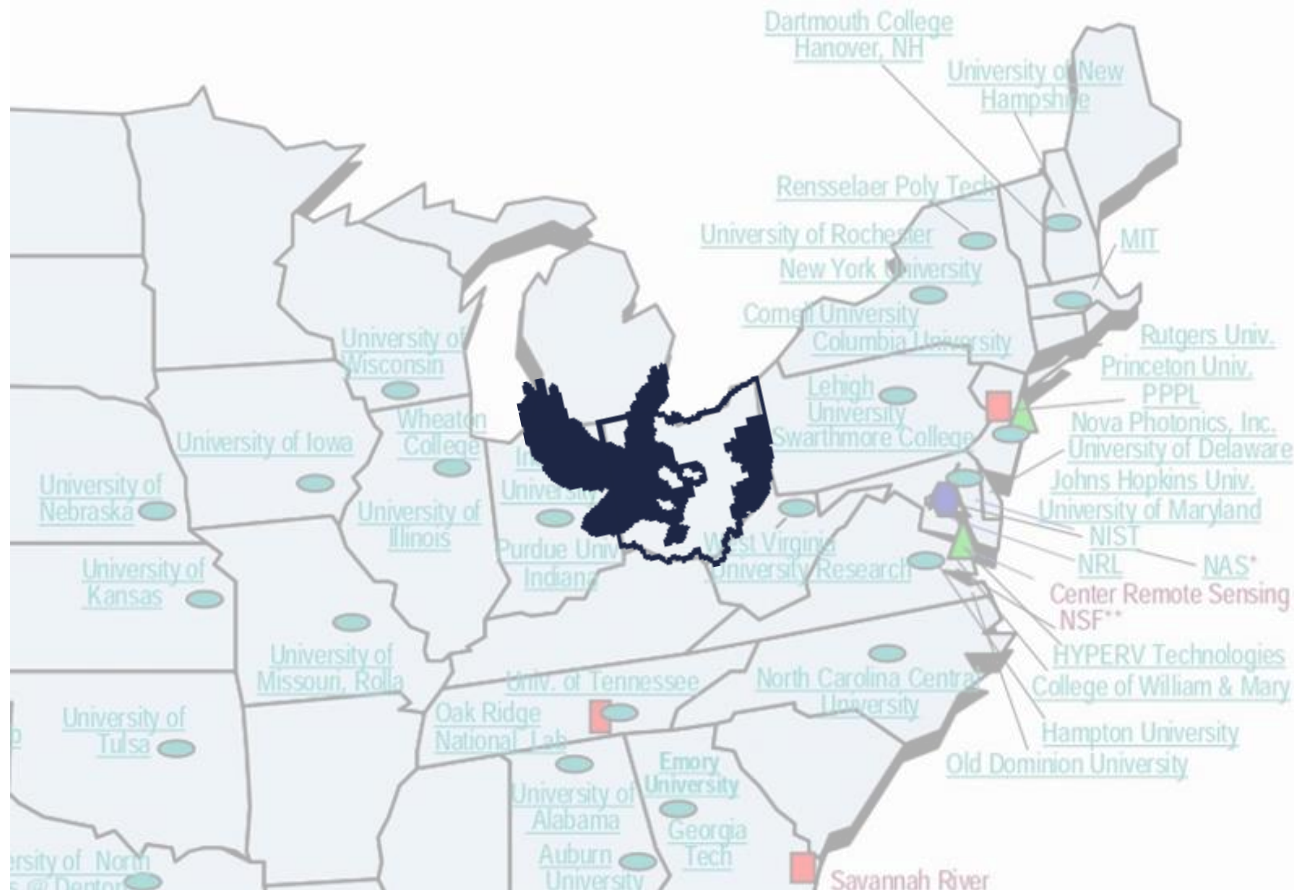


Electing anti-science politicians has meant a loss of \$millions in potential funding and economic development for Ohio



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A COORDINATED NATIONAL MEGAPROJECT



We don't know which fusion technology will win, but we know they will ALL require **advanced materials**

By leveraging Mahoning Valley's **coal & steel legacy**, an advanced manufacturing hub in Ohio-6 **can** produce these materials

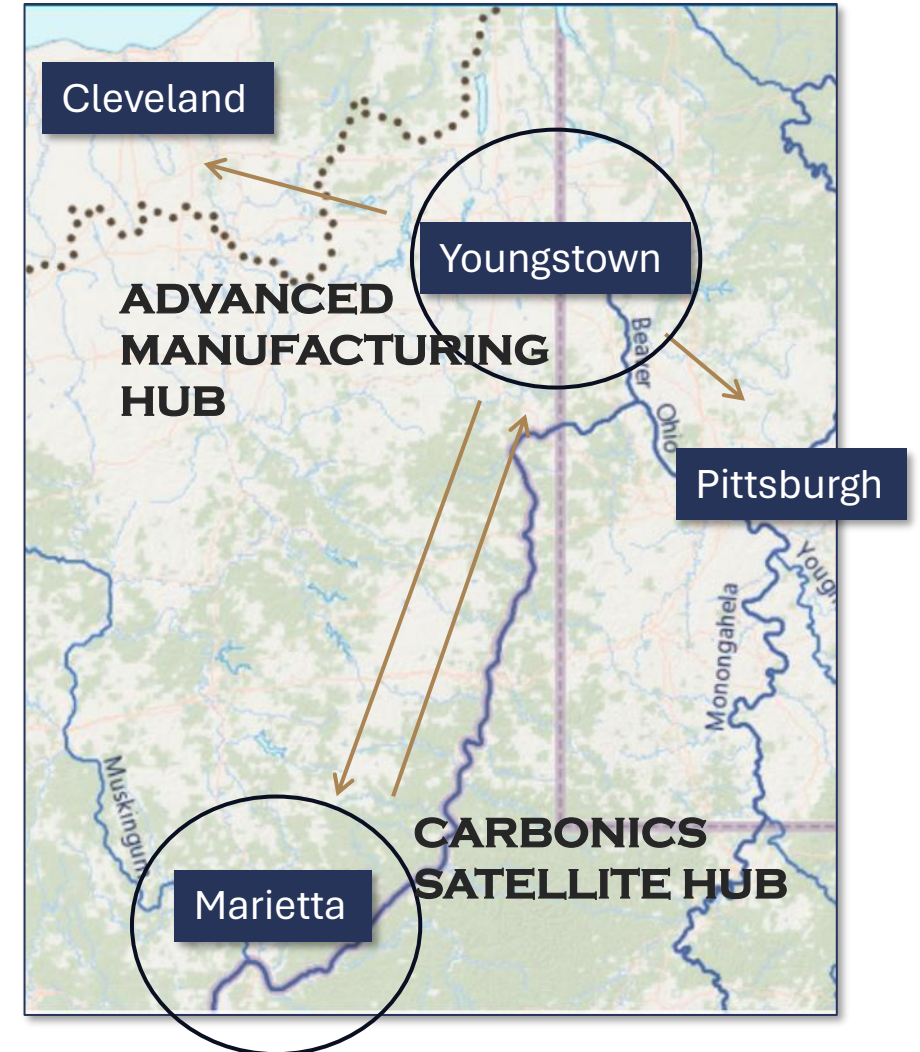


**In a Gold Rush be the
one making the shovels!**

ADVANCED MANUFACTURING

- **Youngstown** has the manufacturing heritage for an advanced materials manufacturing hub:
 - Advanced metallics
 - Advanced polymers
 - Advanced ceramics
 - Advanced composites
 - Nanomaterials
- With **Marietta's** coal heritage, we will create an advanced carbonics satellite hub and guarantee that money will flow up and down the district enriching the 11 Counties.
- Germany rebuilt itself on the bones of its old manufacturing to become the powerhouse of Europe. **We shall** do the same for us to **become the powerhouse of America**, yet again.

**All this creates
high-pay, high-skill,
high dignity jobs
GUARANTEED by
federal funding**



FUSION ADVANCED MATERIALS CHALLENGES

Plasma Engineering:

- Functional and diagnostic materials that operate under severe thermal-mechanical, corrosion, and radiation environments
- Liquid-metal Plasma Facing Components (PFC) construction
- High-temperature super-conducting (HTS) magnets
- Plasma heating actuators and drivers

Diagnostic Testbeds:

- High-temperature material modeling (plasma divertor, plasma confinement chambers, PFCs)
- Thermal management of heat exhaust and gas interchange to remove helium ash/optimize D-T mix
- Heat and mechanical loading testing of Lithium blanket

Responsive Material Manufacturing:

- Structural materials for vacuum vessel, neutron shielding, and lithium blanket
- Cryogenic neutron testing of advanced materials to find neutron degradation limits
- Reduced activation ferritic martensitic (RAFM) alloy development for first wall and vacuum vessels
- Anti-corrosive material development to reduce tritium inventory and increase T-breeding/extraction rates
- High-frequency gyrotrons
- High neutron/heat compatible ion cyclotron antennas

YOUNGSTOWN

A NEW PLAN FOR A NEW ERA

We lost Blue-Collar jobs:

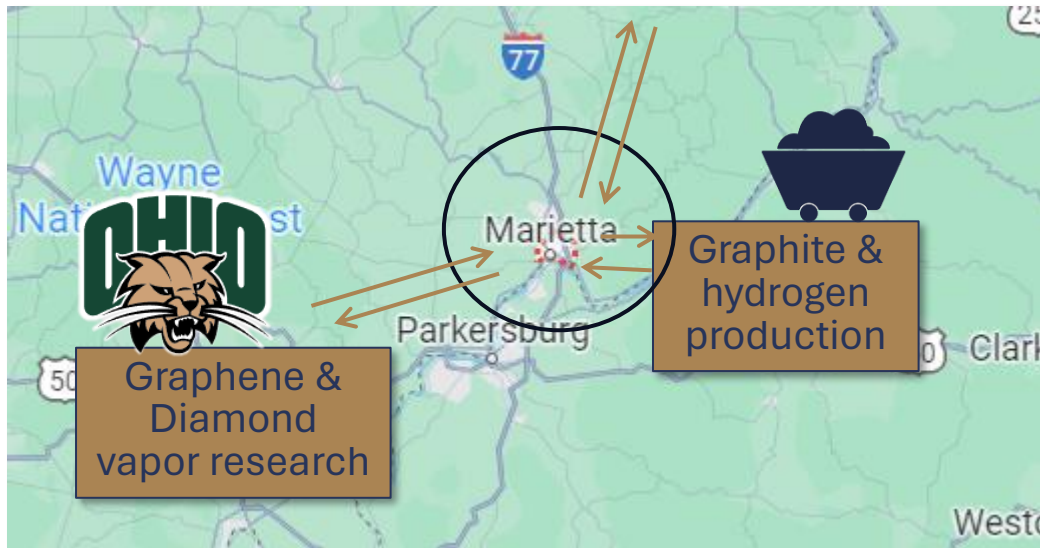
- In the 60s, Youngstown had the highest household income per capita in America. Today we are one of the poorest districts there is.
- After “Black Monday”, we lost:
 - 40,000 jobs
 - 400 satellite businesses
 - \$1.6 billion in economic activity (FY24 dollars)

We will gain New-Collar jobs:

- High-skill, high-pay, high-dignity jobs that do NOT require advanced degrees
- Like blue-collar, but safe and well-paid with fewer hours
- A national program like ITER will create over 130,000 jobs and will generate over \$30 billion of Economic Activity; even partial success **will bring back prosperity to our district**
- Fusion-related operations and spin-off businesses are **over 80% blue(new)-collar jobs** (metal workers, electricians, construction workers, miners, masons, craftsmen, plumbers, welders, painters, etc.)

**From Blue Collar to New
Collar: advanced skills,
NOT advanced degrees**

MARIETTA – A DIAMOND IN THE ROUGH



Washington County

Marietta-Belpre become the small business hub for advanced carbonics commercialization, fed by research and production facilities in the greater area and the hub for critical fusion inputs.

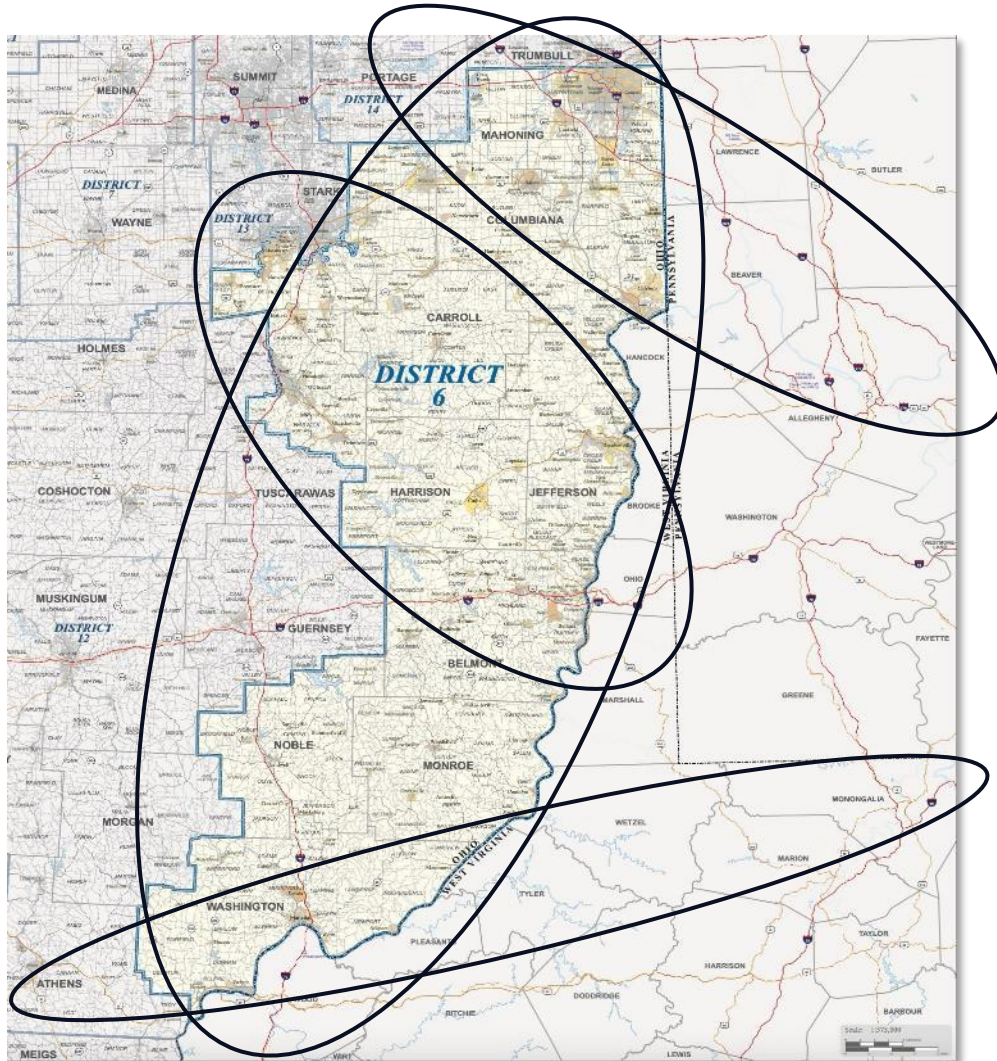
Pleasants Power Plant (and others):

- Using coal to create graphite – a key ingredient of lithium-ion batteries
- Will use coal for hydrogen production – a **greener, hotter, and cheaper fuel than natural gas**, perfect for use in advanced chemical production and metallics (steelmaking/ironworks)
This is the fuel needed for Fusion.
- Hydrogen makes “clean coal” cleaner and is used in producing ammonia – the primary ingredient for a cheaper fertilizer for our farmers

Ohio University, Athens

- Commercialize OU’s carbonics research
 - Graphene – stronger than diamond, lighter than steel, more conductive than copper
 - Diamond vapor – the hardest material in the universe, has ultra-high thermal conductivity
- Carbon-doped magnets for next-gen plasma confinement
- **All of these are essential for commercializing Fusion**

PROSPERITY FOR OH-6



Everyone Benefits:

- Advanced Materials Manufacturing and its spin-offs will generate **economic activity throughout the entire district**
- **Youngstown-Marietta interconnect:** East Liverpool, Steubenville, Martins Ferry, Belpre
- **Akron-Wheeling interconnect:** Canton, Massillon, New Philadelphia, St. Clairsville
- **University interconnect:** OU, WVU, YSU, Pittsburgh universities
- **Spin-off business sectors:** medical technology, aerospace, telecommunications, high-energy physics, robotics, Envirotech, lasers & optics, high-performance electronics

This plan will benefit 11 congressmen and 6 senators. We will NEVER have a “Black Monday” ever again!



RESTORE THE AMERICAN DREAM

VOTE KRIPCHAK
JUNE 11